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       SUPREME COURT OF THE STATE OF NEW YORK
       COUNTY OF SUFFOLK: PART 48
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       IN RE: OPIOID LITIGATION
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                                 INDEX NO.: 400000/2017
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                                 September 09, 2020
                                 Central Islip, New York
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10
                   MINUTES OF FRYE HEARING
                    (Testimony of Dr. Lembke)
11
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       B E F O R E: HON. JERRY GARGUILO
                            Supreme Court Justice
13
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| 20 | STEPHANIE CASAGRANDE, CSR, RPR OFFICIAL COURT REPORTER | |
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| 1 | Frye Hearing - Dr. Lembke 3 |
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| 2 | THE CLERK: Supreme Court, State of New |
| 3 | York, County of Suffolk, Part 48 is now in |
| 4 | session, the Honorable Jerry Garguilo |
| 5 | presiding. |
| 6 | THE COURT: Good morning, everybody. |
| 7 | CHORUS: Good morning. |
| 8 | THE CLERK: The case on the calendar is |
| 9 | In Re Opioid Litigation, Index Number 400000 |
| 10 | of 2017. Your appearances, please, beginning |
| 11 | with the Plaintiff. |
| 12 | MR. HANLY: Paul Hanly, for Suffolk |
| 13 | County. |
| 14 | MS. CONROY: Jayne Conroy, Suffolk |
| 15 | County. |
| 16 | THE COURT: Good morning. |
| 17 | MR. SHKOLNIK: Hunter Shkolnik, Nassau |
| 18 | County. Good morning, your Honor. |
| 19 | THE COURT: Good morning. |
| 20 | MS. SALDANA: Lois Saldana, for the New |
| 21 | York Attorney General's office. |
| 22 | THE COURT: Good morning. |
| 23 | MS. SALDANA: Good morning. |
| 24 | THE COURT: Anyone else? |
| 25 | MR. BADALA: Good morning, your Honor. |

1 4 Frye Hearing - Dr. Lembke Salvatore Badala, for the Plaintiff. 2 3 THE COURT: Good morning. MR. ASHER: Good morning, Nate Asher, 4 5 for Janssen Defendants. MR. SHERIDAN: Tom Sheridan, Suffolk 6 7 County. 8 THE COURT: Good morning. 9 My picture is on the screen. I could do 10 without it. All right. A couple of 11 announcements before we get started. On Friday we're going to have an 12 13 abbreviated session. We have our annual 9/11 14 ceremony, which I will attend. They commence 15 at 3 p.m. on Friday, September 11th, so we'll 16 work somewhat into the lunch hour and recess 17 thereafter, because traditionally that 18 service takes about a little more than an 19 hour. 20 I received a letter. Apparently, the 21 Plaintiff is not going to call Dr. Keller as 22 an expert; is that correct? 23 MR. HANLY: That's correct, your Honor. 24 THE COURT: Okay. So our current 25 schedule will be today, of course,

5 1 Frye Hearing - Dr. Lembke 2 Dr. Lembke; tomorrow, Dr. Keyes; and on 3 Friday, during the abbreviated session, we'll start with Dr. James Tomarken. 4 5 Is everybody on board with that? MS. WELCH: Donna Welch, for the 6 7 Allergan Defendants. We are on board with 8 that, but we have sent a proposed Stipulation 9 to the Plaintiffs regarding the withdrawal of 10 Lacey Keller as an expert. 11 We want to make sure that she is being 12 withdrawn for all purposes from their case in 13 chief. We want to ensure that they are not taking her down from the Frye hearing with 14 15 any intent to have any other of their experts 16 adopt her opinion in whole or in part or rely 17 on her opinion in whole or in part in their 18 case in chief. 19 We assume that's the intent here, but we 20 want to make sure of that before we're 21 precluded from an opportunity to engage in a 22 Frye hearing on her opinions. 23 THE COURT: So, in other words, you want 24 to come to an agreement? 25 MS. WELCH: Correct, your Honor.

6 1 Frye Hearing - Dr. Lembke 2 THE COURT: The letter I received 3 indicates that they may call her as a 4 rebuttal witness, and in the event they choose to do so, we would have a limited Frye 5 6 hearing. 7 Your issue deals with whether or not any 8 other expert tends to rely on that testimony? 9 MS. WELCH: Correct, your Honor. Our 10 concern is simply that on the current record, Plaintiffs have relied themselves on 11 12 Ms. Keller for purposes of summary judgment 13 briefing. If we are withdrawing her -- if 14 they are withdrawing her as an expert, we 15 don't think that's appropriate. 16 So we believe they shouldn't be able to 17 use her opinions in response to a renewed 18 summary judgment motion, and we want to make clear that their other experts in their case 19 20 in chief cannot simply rely on her opinions 21 that are being withdrawn, and they can't 22 adopt her opinions as their own. 23 THE COURT: You said that twice now. Work it out. If you can't work it out, I 24 25 will.

7 1 Frye Hearing - Dr. Lembke 2 MS. WELCH: Thank you, your Honor. 3 MS. CONROY: Thank you, your Honor. 4 THE COURT: Tech people, I'm hearing myself twice. It's like a network 5 five-second delay. Okay. Call a witness. 6 7 MS. STRONG: Your Honor, this is Sabrina 8 Strong, for Johnson & Johnson and Janssen. 9 Before we begin, I'd like to address one issue, your Honor. 10 THE COURT: Go ahead. 11 12 MS. STRONG: Yesterday you received a 13 letter that was filed by some of the 14 Defendants relating to a late disclosure of 15 materials related to Katherine Keyes. 16 After that, we actually received from 17 Plaintiffs' counsel yesterday, approximately 18 4:40 p.m., a late disclosed list of 19 supplemental materials for Dr. Lembke, who is 20 scheduled to testify, as you know, this 21 morning. 22 There is 239 documents identified on 23 that supplemental materials considered list 24 that we received at 4:40 yesterday. I have 25 not even had an opportunity to review them,

8 1 Frye Hearing - Dr. Lembke 2 let alone determine whether we have access to 3 all those materials. 4 I understand they include materials from 1995, early 2000, materials that could have 5 been included and considered by her before 6 7 her deposition, before she submitted her 8 report. 9 We would ask, your Honor, that they not 10 be permitted to elicit any testimony or any 11 opinions that rely upon those materials or 12 address those materials in any way at the 13 hearing today, your Honor. This is classic 14 sandbagging. The discovery rules do not 15 permit for this, and so we would ask for that 16 relief, your Honor. 17 MR. HANLY: Your Honor, they've had 18 these materials since August the 3rd when they were disclosed in connection with the 19 20 West Virginia litigation. So the notion that 21 they're just seeing them for the first time 22 now is simply not true. 23 The second point is, of course, as your 24 Honor knows, an expert's work, an expert's 25 opinions are not static. They are dynamic,

9 1 Frye Hearing - Dr. Lembke 2 and they change over time, and many of these 3 materials were created subsequent to Dr. Lembke's deposition in this case. So we 4 5 really don't think that this is a serious 6 issue. MS. STRONG: Again, your Honor, I'm not 7 8 familiar with what has been disclosed in West 9 Virginia and what has not, but to get a list 10 of 239 documents at 4:50 the night before a 11 Frye examination is absolutely improper, your 12 Honor. 13 New York courts have plainly held that the expert discovery rules are promulgated so 14 15 that no party will be sandbagged or 16 surprised, and that's plainly what this is. 17 And I do understand, your Honor, that 18 there are many documents. I don't know the 19 totality because, as I said, I haven't looked 20 at the 239 documents, but I understand that 21 there are many that predate her deposition, 22 long predate her deposition. 23 THE COURT: Okay. In the event during 24 the course of the examination if, in fact, 25 there is reference to a contested exhibit,

10 1 Frye Hearing - Dr. Lembke 2 note your objection and I'll rule on it at 3 the time. 4 Apparently, through the course of these hearings, although hundreds of exhibits have 5 been noted, very few have actually made their 6 way into the record. So stay on your toes. 7 MS. STRONG: All right. I will, your 8 9 Honor. I have to tell you it's hard to 10 discern that on the fly with over 700 11 initially identified by her and another 239, 12 so I'd like to have a standing objection at that point, but we'll try to do our best in 13 14 that regard. 15 I don't know if Mr. Pyser or Mr. Carter 16 have additional points they would like to 17 make before we begin. 18 MR. PYSER: Briefly, your Honor. 19 is Steve Pyser, for Cardinal Health. 20 the idea that we are aware of these because 21 they were disclosed in the West Virginia 22 litigation, not all Defendants here are in 23 the West Virginia litigation, first of all. Second, there's an entirely different 24 25 expert report in the West Virginia

11 1 Frye Hearing - Dr. Lembke 2 litigation. 3 So if the idea is that we should expect from this witness what she's testified in 4 5 West Virginia, that gets to the heart of the 6 problem, which is that she entered a report 7 in this case and should be testifying in line 8 with the report in this case, and because 9 there is a report in West Virginia that says 10 different things, that just can't be 11 bootstrapped into this case because there's a materials considered list submitted at 4:39 12 13 p.m. the night before the Frye hearing. 14 That's just classic sandbagging, and 15 your Honor should strike it. 16 THE COURT: Okay. So noted. Call a 17 witness. I suggest you stay on your toes 18 also. In the event an exhibit is mentioned 19 that you have a problem with, raise your 20 objection at that point. 21 And, in any event, you'll have a 22 standing objection as we proceed. 23 MS. STRONG: Thank you, your Honor. 24 THE COURT: Call a witness, please. 25 MR. HANLY: Your Honor, the Plaintiffs

| 1 | Frye Hearing - Dr. Lembke 12 |
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| 2 | call Dr. Anna Lembke, remotely. |
| 3 | THE COURT: Good morning, Doctor. |
| 4 | Doctor, can you hear me? Are you muted? |
| 5 | Your lips are moving, but I don't hear |
| 6 | anything. |
| 7 | DR. LEMBKE: Yes, I'm muted. |
| 8 | THE COURT: Swear the witness in, |
| 9 | please. |
| 10 | THE CLERK: Yes. Can you hear me? |
| 11 | DR. LEMBKE: Yes, I can. |
| 12 | THE CLERK: Please raise your right |
| 13 | hand. |
| 14 | (WHEREUPON, Dr. A-N-N-A L-E-M-B-K-E, |
| 15 | having first been duly sworn by the Clerk of |
| 16 | the Court, testified as follows:) |
| 17 | THE CLERK: Please state your name and |
| 18 | address for the record. |
| 19 | THE WITNESS: Anna Lembke, 401 Quarry |
| 20 | Road, Stanford, California, 94305. |
| 21 | THE CLERK: Thank you. |
| 22 | THE COURT: And, Dr. Lembke, good |
| 23 | morning again. I give all witnesses a few |
| 24 | pointers that can expedite these hearings. |
| 25 | Of course you're going to be asked some |
| | |

13 1 Frye Hearing - Dr. Lembke 2 questions this morning, and I suggest that 3 you limit your answer to the information 4 sought by the question. For example, if I were on the witness 5 stand and I was asked on what street do I 6 7 live, I would simply volunteer the name of 8 the street. I wouldn't give the town, the 9 state or the ZIP code because that 10 information is not sought. 11 Number 2, although in life it is not 12 polite to commence an answer before a 13 question is complete, because we save time 14 that way; however, as you probably know 15 already, in court we require a complete 16 stenographic record of all the questions and 17 the answers. 18 So even though you know exactly where a 19 question is going, wait for the question to 20 be complete before you commence your answer. 21 And, number 3, in the event you hear the 22 word "objection" or anything that sounds like 23 "objection," just stop until you get 24 direction from the Court; fair enough? 25 THE WITNESS: Yes.

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                      Frye Hearing - Dr. Lembke
 2
                   THE COURT: Got it. Good. You may
 3
              proceed.
 4
                   MR. HANLY: Thank you, your Honor.
 5
       DIRECT EXAMINATION
 6
       BY MR. HANLY:
 7
                   Good morning, Dr. Lembke.
              Q.
 8
                   Good morning.
              A
 9
                   It's early morning where you are; is
10
       that correct?
11
              A
                   Yes, it is.
12
              Q.
                   You are in your offices at Stanford
13
       University School of Medicine?
14
                   Yes.
              Α
15
                   Now, you and I have met before, correct?
              Q.
16
                   Yes.
              Α
17
                   I presented you in court before Judge
              Q.
18
       Polster some years ago in connection with the opioid
       litigation; do you recall that?
19
20
                  Yes, I do.
              A
21
                   All right. Now, just as a road map for
22
       where we're gonna go, today we're going to be
23
       talking principally about methodology, and in order
24
       to start us off on what I hope is the right foot,
25
       we're going to put up on the screen the nine
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15 1 Frye Hearing - Dr. Lembke 2 opinions that you intend to testify to as and when 3 this case goes to trial, okay? 4 Α Yes. 5 Then thereafter, we'll go through your 6 qualifications, we'll go through the methodologies, 7 and hopefully this will all be over in a reasonable 8 period of time; fair enough? 9 Α Yes. 10 MR. HANLY: All right. Could we put up 11 Slide Number 1, please. 12 Q. Doctor, can you see Slide Number 1? 13 Yes. Α 14 All right. And is this a list of the Q. 15 nine opinions that you discuss in your report in 16 this case? 17 A Yes. 18 All right. And is there anything about this list which is substantively different from the 19 20 list of opinions in your report? 21 Α No. 22 Ο. All right. Just to go through them very 23 briefly, and I'm just going to paraphrase, your 24 Opinion Number 1 is going to be that addiction is a 25 chronic illness; Opinion Number 2 that opioid

16 1 Frye Hearing - Dr. Lembke 2 prescribing grows fourfold starting in the '90s, 3 which increased the supply of deadly opioids; Opinion Number 3 is that the opioid industry misled 4 5 doctors into believing that opioids are more effective and safer than they really are. You then 6 7 give some examples there. 8 Opinion Number 4 is that there's no 9 reliable evidence that opioids work for what's 10 called chronic pain. 5 is the increased supply 11 contributed to more individuals becoming addicted to opioids; 6 is increased supply contributed to more 12 13 individuals, including newborns, becoming dependent 14 on opioids. 15 Number 7, increased supply contributed 16 to more diversion of prescription opioids; Number 8, 17 the increased supply of opioids through legal and 18 illegal sources resulted in the opioid epidemic; and 19 Opinion Number 9 is the opioid epidemic would not 20 have occurred without the pharmaceutical opioid industry's misleading promotion of opioids. 21 22 Did I read those correctly, paraphrasing 23 in part? 24 Yes, you did. 25 Q. All right. And those are the, in sum

17 1 Frye Hearing - Dr. Lembke 2 and substance, those are identical to the opinions 3 listed in your report; is that true? 4 Yes, that is true. 5 Okay. You can take that slide down, Q. 6 please. 7 Okay. Doctor, you are currently 8 Associate Professor and Chief of the Addiction 9 Medicine Dual Diagnosis Clinic. You are Medical 10 Director of Addiction Medicine and Program Director 11 of the Addiction Medicine Fellowship within the 12 Department of Psychiatry and Behavioral Sciences at 13 Stanford University School of Medicine; is that 14 true? 15 Α Yes. 16 Now, in that --Q. 17 THE COURT: Mr. Hanly, I don't mean to 18 interrupt you. I overlooked placing 19 something on the record. 20 MR. HANLY: Yes, your Honor. 21 THE COURT: This applies to everybody 22 here and anyone who may be listening through 23 a live stream. That's the rules of the Chief 24 Judge, Part 29, Section 29(1), the general 25 taking of photographs, films, or videotapes,

18 1 Frye Hearing - Dr. Lembke 2 or audiotaping, broadcasting or telecasting 3 in a courthouse, including any courtroom -and just for the record, the Court considers 4 the locations where this is being live 5 streamed to be part of our courtroom --6 7 office or hallway thereof, at any time or at 8 any occasion, whether or not the Court is in 9 session, is forbidden, unless permission of 10 the Chief Administrator of the courts or a 11 designee of the Chief Administrator is obtained. 12 13 So you may observe the proceedings, but you may not record them, take photographic 14 images, et cetera. Okay. Thank you. I'm 15 16 sorry, sir. 17 MR. HANLY: May I proceed, your Honor? 18 BY MR. HANLY: 19 Dr. Lembke, among your titles is the 20 Chief of Addiction Medicine within the Dual, dual as 21 in two, Diagnosis Clinic, true? 22 Α Yes. 23 And in that context, dual diagnosis 24 refers to a psychiatric condition on the one hand, 25 and a substance use disorder on the other, true?

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19
 1
                      Frye Hearing - Dr. Lembke
 2
                    That is true, yes.
 3
                    All right. Now, you've been on the
              Q.
 4
       faculty at Stanford University School of Medicine
 5
       since approximately 2003?
 6
                    Yes.
              Α
 7
                    All right. And in terms of your
              Q.
 8
       background, you did your undergraduate work at an
 9
       obscure university called Yale?
10
              Α
                    Yes.
11
                    And you did your medical degree at
12
       Stanford University, correct?
13
              Α
                    Yes.
14
                    You did a partial residency in pathology
               Q.
15
       at Stanford, true?
16
              Α
                    Yes.
17
                   And following that, a full residency in
              Q.
       psychiatry at Stanford?
18
19
              A
                   Yes.
20
                    And following that, a fellowship in mood
21
       disorders within the Department of Psychiatry and
22
       Behavioral Sciences, true?
23
              Α
                   Yes.
24
                    You are licensed to practice medicine in
               0.
       the state of California --
25
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20
 1
                      Frye Hearing - Dr. Lembke
 2
               Α
                    Yes.
 3
                    -- since 1995?
               Q.
 4
              Α
                    Yes.
 5
                    You actually received a waiver from the
               Q.
 6
       Drug Enforcement Administration to prescribe
 7
       buprenorphine products, true?
 8
              A
                    Yes.
 9
                    And what, what is the circumstance under
10
       which you would prescribe buprenorphine, and you do
       prescribe buprenorphine products?
11
12
                    I prescribe buprenorphine for patients
13
       who have opioid use disorder, a term for opioid
14
       addiction, as well as for some patients with severe
15
       opioid dependence.
16
                    Buprenorphine is itself an opioid
               Q.
17
       product, true?
18
              Α
                    Yes, it is.
                    You're Board Certified, true?
19
               Q.
20
              Α
                   Yes.
21
               Q.
                    In psychiatry and neurology?
22
               Α
                    Yes.
23
               Q.
                    And you are also Board Certified by the
24
       American Board of Addiction Medicine; is that true?
25
               Α
                    Yes.
```

21 1 Frye Hearing - Dr. Lembke 2 And I'm sure Justice Garquilo knows what 3 Board Certified means, but essentially it means that 4 peers within the same area of work as you come 5 together and vote to give you or not give you a 6 certificate demonstrating your expertise in the 7 particular area; is that a fair description? 8 Well, it's not really a vote by peers. 9 It's -- you have to complete additional training to 10 get expertise in a certain area. And then typically 11 you have to sit for and pass a board exam. 12 Q. Okay. But there is a board that 13 actually certifies, true? 14 Yes. Α 15 All right. Now, you teach medical 16 students at Stanford; isn't that right? 17 Α Yes. 18 Q. And you've been doing so for nearly 20 years? 19 20 That's correct. Α 21 And you've been recognized for your 22 excellence in teaching on two occasions; is that 23 true? 24 Α Yes. 25 Q. You also maintain an active clinical

22 1 Frye Hearing - Dr. Lembke 2 practice, true? 3 Α Yes. 4 And in your clinical practice, a Q. significant portion of your students are -- sorry --5 6 of your patients are patients who have been taking 7 prescription opioids for pain relief and have 8 developed some sort of a use disorder; is that true? 9 Α Yes. 10 And how many such patients would you say 11 you have treated in the last 20 years or so that 12 you've been treating them? 13 Well, I haven't kept count, but it's 14 certainly scores of patients over many years. 15 Scores did you say? Q. 16 Yes. Α 17 All right. Now, we're going to hear a Q. 18 bit about some terms that you are very familiar 19 with, but perhaps the Court and others are not. 20 Can you just briefly explain to the Court what is meant in the context of addiction 21 22 medicine by the term misuse. 23 In the context of addiction medicine, 24 misuse means taking a prescribed medication in a way 25 other than intended by the doctor who prescribed it.

23 1 Frye Hearing - Dr. Lembke 2 Okay. And how about --Q. 3 That's a very broad definition. Α 4 That's all --Q. 5 Not specific, but... Α 6 Thank you, Doctor. That's all I'm Q. 7 asking is a very broad and brief definition so we 8 can orient the Court in terms of your further 9 examination, okay? 10 Yes. Α And the term "dependence," what does 11 12 that mean in the context of addiction medicine? 13 That refers to patients specifically Α 14 with opioid dependence for first the patients who 15 have been taking opioids daily for long periods of 16 time who physiologically adapt to the presence of 17 the molecule such that if they reduce their dose or 18 stop it altogether, they experience opioid withdrawal. 19 20 And the term "addiction," how is that Q. term used in your field? 21 22 So addiction is a complex biopsychosocial disease that can broadly be defined 23 24 as the continued compulsive use of a substance 25 despite harm to self and/or others.

24 1 Frye Hearing - Dr. Lembke 2 And without getting too technical, is 3 there a relationship between that term addiction that you've just defined and something called opioid 4 5 use disorder, O-U-D? 6 Yes. So opioid use disorder is the 7 terminology used in the Diagnostic and Statistical 8 Manual of Mental Disorders in the latest edition, 9 and it's essentially synonymous with addiction. 10 Q. Now, in working with the patients in 11 your clinic, you develop treatment plans to deal with opioid use disorder, or addiction, or 12 13 dependence, or misuse? 14 Yes. Α 15 And those treatment plans can include 16 nonopioid medications, true? 17 Α Yes. 18 Q. Also nondrug plans of rehabilitation, if 19 you will? 20 Yes, correct. 21 Q. Now, you also hold a position in the 22 Stanford Department of Anesthesiology and Pain 23 Medicine, true? 24 Yes. I have a courtesy appointment in 25 anesthesiology and pain medicine.

25 1 Frye Hearing - Dr. Lembke 2 And the courtesy appointment does, 3 however, enable you to treat pain patients, correct? 4 Α Yes. 5 Now, over the years of your career, is there a body of scientific and medical literature 6 7 that you have studied to understand the relationship 8 among pain, dependence, and addiction? 9 A Yes. 10 And have you personally contributed to 11 that body of literature? 12 Α Yes, I have. 13 Q. Have you written peer -- what are called 14 peer-reviewed papers in that area? 15 Α Yes. 16 For the record, peer-review refers to 17 the process by which an author submits her 18 manuscript to a particular scientific journal or 19 journals, and the journal then sends the paper to other experts in the field to determine whether the 20 21 paper is worthy of publication in that particular 22 journal. Is that a fair description of peer-review? 23 Α Yes. 24 Ο. Now, in addition to peer-reviewed 25 papers, you've also written a book concerning

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26
 1
                      Frye Hearing - Dr. Lembke
 2
       opioids and addiction, true?
 3
              Α
                   Yes.
 4
              Q.
                   And I'm holding up -- can you actually
 5
       see me, Doctor?
 6
                   Yes, yes, I can.
 7
                    So I'm holding up rather awkwardly a
              Q.
       book that you have published called Drug Dealer M.D.
 8
 9
       That is your book, correct?
10
                    That's correct.
              Α
11
                   Okay. And this book was published in
              Q.
12
       2016, true?
13
              A
                   Yes.
14
                   And 2016 was prior to the time that you
15
       first came to work with lawyers in connection with
16
       the opioid litigation, true?
17
              А
                   Yes.
18
              Q.
                   Your book was published, for example,
19
       before you and I even met, true?
20
              Α
                   Yes.
21
              Q.
                   Now, has this book received some
22
       positive press, if you will?
23
              Α
                   Yes.
24
                   And, in fact, the New York Times
25
       selected it as one of the top five books to read if
```

```
27
 1
                      Frye Hearing - Dr. Lembke
 2
       you wish to understand the opioid epidemic and how
 3
       we got to where we are today, true?
 4
               Α
                    Yes.
 5
                    Now, you began to treat patients with
 6
       substance abuse issues in the late 1990s, true?
                    That's correct.
 7
               Α
 8
               Q.
                    And the substances that your patients
 9
       were abusing included prescription painkillers,
10
       true?
11
               Α
                    Yes.
12
                    Prescription benzodiazepines?
               Q.
13
               A
                    Yes.
14
                    Alcohol, true?
               Q.
15
               Α
                    Yes.
16
               Q.
                    Tobacco?
17
               Α
                    Yes.
                    Marijuana?
18
               Q.
19
               Α
                    Yes.
20
                    A panoply of addictive substances, true?
               Q.
                    That's correct.
21
               A
22
               Q.
                    Now, had some of those patients that you
23
       treated received opioid prescriptions from their own
24
       doctors?
25
                    Yes. The majority.
```

28 1 Frye Hearing - Dr. Lembke 2 And they presented to you with some sort 3 of a substance use disorder; is that true? 4 That's right. Α Following the lawful prescription to 5 Q. them by their own physicians, true? 6 That's correct. 7 Α 8 Q. Did the book that you published include 9 any information about prescription opioid deaths 10 among New York Medicaid patients? Yes, it did. 11 Α 12 And do you recall what your research 13 showed about New York Medicaid patients who had been 14 prescribed opioids? 15 It showed that New York Medicaid 16 patients are more likely to be prescribed an opioid 17 than the non-Medicaid patients and more likely to 18 die of an opioid overdose. Now, is reading the medical literature, 19 Q. 20 a literature written by persons other than yourself, 21 is that a standard part of your practice as a doctor 22 and as a professor at Stanford University? Yes, it is. 23 Α 24 Why is that? Why is that a standard Q. 25 methodology in your work?

29 1 Frye Hearing - Dr. Lembke 2 I need to read the medical literature to 3 stay up to date on the science, and to take good 4 care of my patients, and also to teach medical students, Stanford undergraduates and physicians in 5 training, residents and fellows. 6 7 Let me ask you about those students. Q. 8 Do you develop a curriculum for those 9 students? 10 Α Yes. 11 Is there any relationship between the 12 curriculum that you develop and the medical 13 literature written by persons other than yourself? 14 My curriculum is formed by my review of 15 the best evidence in the medical literature. 16 All right. Now, in addition to the work Q. 17 you've described thus far, were you ever appointed 18 to any panels within the state of California dealing 19 with opioid misuse? 20 Yes. I was appointed to the research 21 advisory panel of California by Governor Jerry 22 Brown. 23 And what was the upshot of that panel? Ο. 24 Our role was mainly to assist the safety 25 of clinical trials being conducted in the State of

30 1 Frye Hearing - Dr. Lembke 2 California. 3 Now, you used the term "safety." That's a term that we hear a lot of in the context of 4 prescription medications, true? 5 6 Α Yes. 7 Safety and efficacy are two interrelated Q. 8 concepts in the pharmaceutical world, true? 9 Α Yes. 10 And those are, those are two concepts 11 that the FDA pays particular attention to in respect to prescription medications, true? 12 13 Α Yes. 14 Do safety and efficacy relate to 15 something called a risk-benefit profile? 16 Α Yes. 17 And just very briefly describe for 18 Justice Garquilo what that risk-benefit profile is in the context of opioids. 19 20 So with opioids, it's just essential to 21 assess whether or not the safety of the opioid in a 22 given patient is -- whether or not the benefits in 23 that patient outweigh any risks or unintended 24 adverse medical consequences. 25 Q. Okay. Is it fair to say that safety and

31 1 Frye Hearing - Dr. Lembke 2 efficacy are key concepts in the context of 3 prescription medications? 4 Yes. Α 5 And in the context of prescription opioid medications? 6 7 Α Yes. 8 Q. Now, in reaching the conclusions that 9 are discussed throughout your book published in 10 2016, did you apply the same methodology in reaching 11 those conclusions that you use in your professional work as a scientific researcher and a medical 12 13 doctor? 14 Yes, I did. 15 And let me ask you this: Are you 16 familiar with something known as a pharmaceutical 17 sales representative detailing? 18 I'm sorry, I didn't catch the last word. 19 Q. Are you familiar with something known as 20 pharmaceutical sales representative detailing? Yes, I am. 21 Α 22 All right. And is it fair to say that that's the circumstance where a pharmaceutical 23 24 company sales representative goes into a doctor's 25 offices or other healthcare provider's offices and

32 1 Frye Hearing - Dr. Lembke 2 discusses, presents to the healthcare provider 3 purported information about particular drugs? Yes, that's correct. 4 5 Now, in writing your book, did you --Q. 6 did you have regard to any information concerning 7 sales representative representations about opioids 8 made to healthcare providers? 9 Α Yes. 10 You had access to materials in the 11 public domain concerning the kinds of statements and 12 documents that were being provided by sales 13 representatives, opioid sales representatives to 14 healthcare providers? 15 Α Yes. 16 These were documents that predated the Q. 17 documents you received from the lawyers in 18 connection with the various opioid litigations, true? 19 20 Α Yes. 21 Okay. Now, since you were -- began to 22 do some work for the lawyers in the opioid 23 litigations, you were provided with internal company 24 documents concerning those promotional messages, 25 true?

33 1 Frye Hearing - Dr. Lembke 2 That is correct. Α 3 And you reviewed all of that material? Q. 4 Α Yes. 5 And did you reach conclusions concerning Q. the truth or falsity of those messages? 6 7 Α Yes, we did. 8 Q. In reaching those conclusions, did you 9 use the same methodology you have used historically 10 as a scientific researcher and a medical doctor in the sphere of addiction medicine? 11 12 Α Yes. 13 That methodology, that series of steps 14 didn't change in any way as between pre litigation, 15 for example, and the work you've done in the 16 litigation? 17 No, it did not change. 18 Okay. Now, have you undertaken any sort 19 of a program designed to correct any 20 misrepresentations that pharmaceutical sales 21 representatives made to healthcare providers in the 22 United States? 23 Α Yes. 24 And do you call that program academic 25 detailing in contrast to pharmaceutical sales rep

34 1 Frye Hearing - Dr. Lembke 2 detailing? 3 Yes, I do. Α 4 And in the course of -- and the nature Q. 5 of that academic detailing program that you, that 6 you engage in, you actually go around the country 7 from time to time and provide lectures and other 8 support to healthcare providers to deal with the 9 potential misinformation they may have received from 10 the drug companies, true? 11 Α Yes. 12 And you've actually done this academic Q. 13 detailing, among other places, right here in the 14 State of New York, true? 15 Α Yes. 16 And you've received thanks from the 17 various healthcare providers for presenting this 18 information correcting misinformation; is that 19 correct? 20 Α Yes. 21 You've been invited to many different 22 conferences and speaking opportunities throughout the United States to provide this academic 23 24 detailing, true? 25 A Yes.

35 1 Frye Hearing - Dr. Lembke 2 And do you continue to do that work Q. 3 today? Yes, I do. 4 Α 5 And how many such talks, presentations, Q. 6 meetings would you say you've had since the 7 publication of your book in 2016? 8 I've had over 100 live speaking 9 engagements since the publication of my book in 10 2016. 11 Okay. I want to turn now to -- among 12 your peer-reviewed materials, you published a 13 research letter that looked at the patterns of 14 opioid prescribing under the federal Medicare 15 program; is that true? 16 Yes. Α 17 And what you want to look at was how 18 many scripts are being written for Medicare beneficiaries over any particular period of time, 19 20 correct? 21 Α That's correct. 22 And tell Justice Garguilo what your work 23 discovered concerning prescribing under the Medicare 24 program. 25 Α We found that over one-third of Medicare

36 1 Frye Hearing - Dr. Lembke Part D patients is prescribed an opioid in any given 2 3 year. 4 In addition to what we've already Q. 5 discussed, have you provided any other public health service, such as consultation with any congressional 6 bodies or with the White House? 7 8 A Yes. 9 Just very briefly, what did you do in 10 that context? I testified before lawmakers in 11 12 Washington regarding opioid safety and efficacy of 13 opioids. I've been to White House meetings convened 14 to address how to target and abate the opioid 15 epidemic. 16 I've talked with governors and other 17 lawmakers in states across the country regarding the 18 opioid problem. 19 Ο. Okay. Now I want to turn to discuss a 20 bit with you the methodology that underlies the 21 actual opinions in this case, okay? 22 Α Yes. 23 All right. Now, you already testified Q. 24 that in, that in writing your book, you used the 25 same series of steps, methodology that you use in

37 1 Frye Hearing - Dr. Lembke 2 your, in your scientific work and in your clinical 3 practice, correct? 4 Α Yes. 5 And in reaching the opinion which we saw in Slide Number 1 of the nine opinions in this case, 6 7 you reviewed scientific and medical literature 8 concerning opioid papers that were written by folks 9 other than you, correct? 10 Yes. Α 11 And how many such papers in connection with this litigation -- and by "this litigation," I 12 13 mean not only this case, but the other cases in 14 which you've been engaged -- would you say you 15 looked at concerning opioids? 16 I've reviewed over 600 papers regarding 17 opioids in the medical literature for this 18 litigation. 19 Ο. Okay. Now, when you say you reviewed 20 the 600 or so papers, let me ask you, first of all, 21 all of these papers or virtually all of these 22 papers, they have at the front something that's 23 called an abstract, right? 24 Α Yes. 25 Q. And that's like a little summary of what

38 1 Frye Hearing - Dr. Lembke 2 the whole paper is gonna be about, correct? 3 Α Yes. 4 So in looking at the 600 papers, did you Q. just take a look at the abstract and move on? 5 6 No. My methodology is founded in 7 in-depth analysis of these papers in order to 8 determine whether or not the information in the 9 abstract summary is reflected in the rest of the 10 paper and supported by the data that the authors put 11 forth. I'm also very careful to look at things, 12 13 like any conflicts of interest that the authors may 14 have and also who funded the study. 15 Well, let me see if I understand this. Q. 16 Are you saying that the abstract, which 17 summarizes the paper, in some instances might not be 18 accurate as a summary? I'm saying that the abstract, in my 19 20 research, has shown that an abstract doesn't necessarily reflect the true state of the data that 21 22 the authors put forth, nor does it necessarily 23 reflect an appropriate summative conclusion derived 24 from the data, which is relevant because most 25 healthcare providers, busy clinicians almost always

39 1 Frye Hearing - Dr. Lembke 2 -- I won't say almost always, but very often just 3 read the abstract. So do I gather from your answer, Doctor, 4 Q. 5 that in reviewing the 600 papers in connection with the opioid litigation, you actually read every page 6 7 of every study? 8 Α Yes. 9 So we have an example of what you just 10 testified to. Could we put up Slide Number 2, 11 please. 12 Doctor, can you see that slide? 13 Yes, I can. Α 14 Now, correct me if I'm wrong, this is a 15 part, a pullout, if you will, from a paper by a 16 Dr. Chou, C-H-O-U, that you reviewed as part of your 17 work in connection with this case, correct? 18 That's correct. It's by a large number 19 of authors. Dr. Chou is the first author. 20 Q. Correct. And so what we're seeing here 21 is we've pulled out the abstract, and you've 22 actually highlighted a part of the abstract that 23 reads: "Chronic opioid therapy can be an effective 24 therapy for carefully selected and monitored 25 patients with chronic non-cancer pain."

40 1 Frye Hearing - Dr. Lembke 2 Do you see that? 3 Α Yes. 4 And why did you highlight that as part Q. of your testimony here today? 5 6 I highlighted that because that 7 statement is not reflective of the evidence, and I 8 think it would be misleading for many readers if 9 they only read the abstract. 10 Furthermore, the recommendations of the 11 authors are -- and I highlighted the strong recommendation for the use of chronic opioid therapy 12 13 in the treatment of chronic non-cancer pain, which 14 they then briefly qualify with the words "low 15 quality evidence," which is strange that they would 16 have a strong recommendation for a treatment that 17 has low quality evidence. 18 Furthermore, reading more in depth, it becomes evident that the authors themselves know 19 that the evidence is insufficient, the evidence for 20 the use of opioids in treatment of chronic 21 22 non-cancer pain is insufficient to assess the 23 effects on health outcomes, which is that third box 24 pulled out below. 25 It's also worth mentioning that that low

41 1 Frye Hearing - Dr. Lembke 2 quality information is in an appendix of the 3 article. So you really have to go digging for it. 4 THE COURT: Excuse me. Doctor, who 5 prepares the abstract, the author or someone else? 6 7 THE WITNESS: The abstract is prepared 8 by the authors. 9 THE COURT: Okay. Thank you. 10 BY MR. HANLY: 11 Ο. And, Doctor, essentially what you are 12 calling out is the inconsistency between the 13 sentence in the abstract that says: "Chronic opioid 14 therapy can be effective," and the sentence at the 15 very bottom that says: "Evidence is insufficient to 16 assess effects on health outcomes," true? That 17 stuff --18 Yes. Yes. And this is a pattern that 19 repeats itself throughout the medical literature when looking at the data on opioid use for chronic 20 21 pain. 22 Ο. Now, there's something else about this 23 paper, is there not, that caught your attention? 24 Could we have Slide Number 3, please. 25 And this is from the appendix. It's a

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                      Frye Hearing - Dr. Lembke
 2
       little hard to read, but this is the list of panel
 3
       members who participated in the promulgation of this
 4
       paper, true?
 5
                   Yes. So it is standards that all
              Α
       authors who publish in peer-reviewed journals must
 6
 7
       declare their financial conflicts of interest.
 8
                    And what's notable here is that more
 9
       than half of the authors in this 2009 publication
       who strongly recommended the use of opioids in the
10
11
       treatment of chronic pain, despite weak and
12
       insufficient evidence, were, in fact, receiving
13
       financial fees, consultative fees from the opioid
14
       industry.
15
                   Okay. And, in fact, we see here under
              Q.
16
       Dr. Perry Fine, he discloses that he serves on
17
       advisory boards for a number of different companies,
18
       including Johnson & Johnson, Purdue Pharma and Endo.
19
       Do you see that?
20
              Α
                    Yes.
21
                    THE COURT: Apparently -- correct me if
22
               I'm wrong -- Dr. Fine and Dr. Portenoy appear
23
               in the original, in the original Complaint --
24
                    MR. HANLY: Precisely, your Honor.
25
                    THE COURT: -- as Defendants.
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43 1 Frye Hearing - Dr. Lembke 2 MR. HANLY: As Defendants, that's 3 correct. BY MR. HANLY: 4 5 And as the Court already noted, we have Q. Dr. Portenoy there in the box below, and 6 7 Dr. Portenoy discloses consulting agreements with an extensive list of pharmaceutical companies estimated 8 9 to work with four to five within a three-year 10 period, et cetera, correct? 11 Α Yes. 12 And is this in-depth analysis of 13 scientific literature published by folks other than 14 yourself, is that a standard method in order to 15 reach conclusions about, for example, the 16 effectiveness of opioids for chronic pain? 17 Yes. Α 18 And is that the methodology that you 19 followed as part of getting to your opinions in this 20 case and your opinions in your pre litigation book? 21 Α Yes. 22 Now, in looking at these 600 papers that 23 you looked at -- I'm finished with that slide. 24 Thank you. 25 In selecting the papers to review, the

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                      Frye Hearing - Dr. Lembke
 2
       600 or so, did you exclude papers that contained
 3
       views that disagreed with yours?
 4
              Α
                   No.
 5
                   Why did you include papers which
 6
       disagreed with yours as part of your methodology?
 7
                   Well, those are the papers that would be
 8
       important for me to look at even more closely to
 9
       understand how those authors came to conclusions
10
       that seem to be going in a direction different from
11
       the conclusions that I'm deriving from the evidence.
12
                   All right. Now, did you review
              Q.
13
       something that's become known, become legendary, if
14
       you will, in this litigation called the Porter and
15
       Jick letter?
16
              Α
                   Yes.
17
                    MR. HANLY: Could we put up Slide Number
18
               4, please.
19
       BY MR. HANLY:
20
              Q.
                   Now, Doctor, can you see that screen?
                   Yes, I can.
21
              Α
22
               Q.
                    This is the entirety of the Porter and
23
       Jick paper, true?
24
                    Yes. I wouldn't even call it a paper.
25
       It's a letter to the editor.
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45 1 Frye Hearing - Dr. Lembke 2 Right. It's an 11-line, five-sentence 3 letter to the editor from the New England Journal of 4 Medicine in 1980 that essentially was a review of some 12,000 patient hospital charts to see whether 5 6 in those charts the healthcare provider had noted 7 any signs of addiction to the narcotic drugs that 8 had been administered to those 12,000 patients, 9 correct? 10 Yes. 11 This letter has been cited close to a 12 thousand times in the medical literature since 1980, 13 true? 14 Yes. Α 15 This letter was used by the 16 pharmaceutical opioid manufacturers to support the 17 idea that addiction in patients taking opioids was 18 extremely rare, true? 19 MS. STRONG: Objection, your Honor. 20 THE COURT: There's an objection. What's the nature of the objection? 21 22 MS. STRONG: Your Honor, it's leading. 23 I know we're being very lenient with leading, 24 but when it comes to feeding the expert 25 substantive components of the opinion, I

46 1 Frye Hearing - Dr. Lembke 2 would ask that they not lead, your Honor. 3 THE COURT: I agree. Rephrase the 4 question. 5 MR. HANLY: Sure thing. BY MR. HANLY: 6 7 Dr. Lembke, employing your usual Q. 8 methodology for examining a scientific publication, 9 did you use that methodology in connection with this letter to the editor? 10 11 Α Yes. 12 Q. And can you tell the Court what history 13 teaches happened after the publication of this 14 letter? 15 Well, I think it's important to note, 16 first, that in my review of the medical literature, 17 I saw this article frequently cited. I also saw it 18 cited in promotional material from the opioid 19 industry. 20 But what's important to note about this 21 data point is that it's a very low quality piece of 22 evidence. It's not purely a peer-reviewed paper. 23 It's a letter to the editor. It's not 24 representative of the types of patients who are --25 have become dependent on and addicted to opioids in

47 1 Frye Hearing - Dr. Lembke 2 the United States today. 3 These are hospitalized patients, many of 4 who received a single dose of an opioid administered by a healthcare provider. This is not a reliable 5 piece of evidence to consider the risk of addiction 6 7 in ambulatory outpatients receiving opioids in large 8 quantities for long duration. 9 Nonetheless, this paper had a huge 10 influence on opioid prescribing and the healthcare 11 perspective on the safety of opioids in the 12 treatment of pain, such that it contributed to an 13 increase in opioid prescribing. 14 MR. HANLY: Thank you, Doctor. 15 You can take that slide down now, 16 please. 17 BY MR. HANLY: 18 Ο. Now, during the course of your work in 19 this case, Doctor, we've already established that 20 you looked at certain materials provided to you by the Plaintiffs' lawyers from the Defendants internal 21 22 files concerning statements about the safety and 23 efficacy of opioids, true? 24 Α Yes. 25 Q. And did you, as part of your work in

48 1 Frye Hearing - Dr. Lembke 2 this case, did you compare those documents, the 3 statements in those documents with the medical 4 literature to see whether the statements made by the manufacturers were consistent with the medical 5 literature? 6 7 Α Yes, I did. 8 Q. And what did you, as part of your 9 methodology, what did you discover? 10 I discovered that there were many 11 inconsistencies in terms of what the promotional 12 material was saying about the safety and efficacy 13 and what the evidence was saying about safety and 14 efficacy. 15 Now, in addition to your review of the 16 published medical literature by doctors other than 17 yourself, did you, in forming your opinions in this 18 case, did you rely on your clinical experience 19 treating patients with pain and substance use 20 issues? 21 Α Yes. 22 And can you just briefly explain how 23 your personal professional experience figured into the methodology that underlies the opinions you give 24 25 -- you intend to give, with the Court's permission,

49 1 Frye Hearing - Dr. Lembke 2 in this case? 3 So I observed thousands of patients over Α the past 20 years becoming addicted to prescription 4 5 opioids, and I went to the medical literature to see whether or not there was evidence to support my 6 7 clinical experience, whether my clinical experience 8 was not based in evidence. And when my clinical 9 experience seemed to be divergent from the evidence, 10 I tried to figure out what I might be missing in 11 terms of my clinical impression. So the medical science was very 12 13 important, touchstone in terms of evaluating my 14 clinical experience. 15 Okay. You used the term evidence a 16 couple of times in your answer and his Honor, I 17 believe, has heard of the concept of evidence-based 18 medicine. Is that a concept you're familiar with? Yes, it is. 19 A 20 And, very briefly, what does that 21 concept connote? 22 Evidence-based medicine speaks to the 23 idea that when we ground medical practice in science 24 we will have better medical care. So it's important

to, you know, clinical experience is important, but

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50 1 Frye Hearing - Dr. Lembke 2 it's important to reflect on our clinical experience 3 in the context of the scientific evidence. 4 And do you, as part of your methodology Q. in this case, did you -- did you employ 5 evidence-based medicine? 6 7 Α Yes. 8 Q. Now, let me ask you, in applying your 9 methodology to reach your opinions in this case, did 10 you determine whether you were able to state those 11 opinions to a reasonable degree of scientific and medical certainty? 12 13 A Yes. 14 And are you? Q. 15 Α Yes. 16 Now, let's talk about some basic terms. Q. 17 Then we'll go through this section quickly, but just 18 so that we have for the record, let's start with the 19 basics. Just tell the Court very briefly what 20 opioids are. 21 So opioids are molecules that bind to 22 opioid receptors in the brain, and they have very 23 powerful effects. They can relieve pain in the 24 short-term. 25 They also stimulate a part of the brain

51 1 Frye Hearing - Dr. Lembke 2 called the dopamine reward pathway, which is why 3 they are highly addictive. And they also work on a part of the brain called the brain stem, which 4 5 controls the breathing rate, and they can slow --6 powerfully slow down the breathing rate and the 7 heart rate, which is why they're very, very lethal 8 and why people overdose and die from them. 9 All right. Now, the first opinion of Q. 10 your nine opinions on the list relates to addiction to opioids, correct? 11 12 Α Yes. 13 And you state in that opinion that 14 addiction, addiction is a chronic illness. So 15 staying with the basics, there are accepted 16 definitions of addiction within the area of 17 addiction medicine, true? 18 Α Yes. 19 MR. HANLY: All right. Can we put up 20 Slide Number 5, please. BY MR. HANLY: 21 22 Ο. And while we're doing that, I will ask 23 the Doctor, is there a body called the American 24 Society of Addiction Medicine? 25 Α Yes.

52 1 Frye Hearing - Dr. Lembke 2 And is that a body that you are, in some 3 fashion, a member of? 4 Α Yes. 5 And that's a body that is interested in 6 issues surrounding addiction, true? 7 Yes. It's a professional medical 8 society for healthcare providers who treat and research addiction. 9 10 Okay. And the American Society of 11 Addiction Medicine came up with this definition of 12 addiction which reads: Addiction is a treatable, 13 chronic medical disease involving complex 14 interactions, paraphrasing, and an individual's life 15 experiences. 16 People with addiction use substances --17 or -- use substances. People with addiction use 18 substances or engage in behaviors that become compulsive and often continue despite harmful 19 20 consequences. Prevention efforts and treatment 21 22 approaches for addiction are generally as successful 23 as those for other chronic diseases. 24 Did I read that correctly? 25 Α Yes.

53 1 Frye Hearing - Dr. Lembke Okay. And is this definition by the 2 3 American Society of Addiction Medicine, is that some sort of an outlier? 4 5 No. That's a well-accepted definition of addiction medicine, addiction in the field. 6 7 All right. It's regarded as a -- strike Q. 8 that. 9 Did this definition, promulgated by this 10 Society of Addiction Medicine, result from some sort 11 of a consensus of experts in the field? 12 Α Yes. 13 MR. HANLY: Thank you. I'm finished 14 with that. 15 BY MR. HANLY: 16 Q. Now, there's -- just anticipating 17 potential questions from the esteemed lawyers for 18 the drug companies, there's another organization called the American Psychiatric Association, which 19 20 has a slightly different definition of addiction, true? 21 22 Yes. You're speaking of the Diagnostic 23 and Statistical Manual of Mental Disorders? 24 Ο. Yes. What's called the DSM. 25 And the DSM, which is a publication of

54 1 Frye Hearing - Dr. Lembke 2 the American Psychiatric Association, it uses the 3 term -- instead of addiction, it uses the term opioid use disorder, true? 4 5 A Yes. The Judge has heard that from prior 6 7 testimony, sometimes called OUD, true? Yes. I don't know what the Judge has 8 heard before, but, yes. 9 10 Okay. If you accept that, I think we'll 11 be okay. 12 Now, is there, based on your review of 13 the medical literature concerning addiction and your 14 20 years or so --15 I'm sorry, I can't hear you when you 16 walk away from the microphone. I'm sorry. 17 I'm sorry. Based upon your experience 18 as a scientist and a doctor engaged in these -- the area of addiction medicine, is there any real 19 20 difference between the definitions of addiction that 21 the American Society came out with and the 22 definition of opioid use disorder that the American 23 Psychiatric Association has adopted? 24 No. In essence, they're saying the same 25 thing.

55 1 Frye Hearing - Dr. Lembke 2 Okay. Now, in your Opinion Number 2 in 3 this case, which is part of Slide Number 1, but we 4 don't need to put it up, you state: Opioid prescribing grows fourfold starting in the 1990s, 5 which increased the supply of potent and deadly 6 7 opioids, et cetera, including in New York, correct? 8 Α Yes. 9 And elsewhere you've written of what you 10 call a paradigm shift in the prescribing by doctors 11 of opioids beginning in the 1990s, true? 12 Α Yes. 13 So what happened in the 1990s that was 14 different from what happened over the decades prior 15 to the 1990s in connection with physicians' 16 prescribing habits for opioids? 17 Yes, so this was a shift that really 18 began in the 1980s with the advent of the hospice 19 movement and then really gained momentum in the 20 1990s, but the shift was essentially the following: Prior to 1980 doctors were very 21 22 reluctant to prescribe opioids for their patients 23 because they were concerned that their patients 24 would get addicted. 25 This was based on historical prior

56 1 Frye Hearing - Dr. Lembke 2 doctor-caused opioid epidemic back -- dating back at least to the Civil War, early 1900s. But in the 3 1990s there was a huge change in the way that 4 doctors were trained to regard opioids. 5 They were taught that opioids -- that 6 7 the risk of addiction to opioids are -- is very, 8 very small, as long as the opioids are being 9 prescribed by a doctor for a patient with real pain 10 and real disease, that somehow that prescription pad 11 could confer some kind of halo effect, and the fact that the patient had serious pain would protect them 12 13 from addiction. 14 Doctors were also taught that opioids 15 are effective treatment for chronic pain and that 16 you can continue to go up on the dose without 17 endangering a patient. 18 So these were huge changes in the way 19 that opioids came to be used, and the treatment 20 really began in medical school. I went to medical school in the 1990s, 21 22 and I was the recipient of this training. 23 Q. And what you just described, Doctor, is 24 there any historical evidence to support what you 25 just said, for example, in the literature?

Frye Hearing - Dr. Lembke

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2 Yes. So there are studies, 3 peer-reviewed literature showing that the risk of addiction is quite common, even among patients who 4 are prescribed opioids by a doctor for pain. And 5 those data points predate this paradigm shift that 6 occurred in the 1990s. 7 8 So the bottom line is we, as a 9 healthcare institution, knew that this risk was 10 there, and then we collectively forgot it for about 11 two or three decades. 12 Q. Your Opinion Number 2 that we've been 13 talking about, this increase of prescribing, 14 fourfold increase, four times what had been 15 prescribed earlier, is there, is there any consensus 16 in the areas of addiction medicine as to whether 17 this increase resulted in any increase in 18 unfavorable outcomes for the patients? 19 THE COURT: Just yes or no. Just yes or 20 no, Doctor. 21 А Yes. 22 MR. HANLY: All right. And could we put 23 up Slide Number 6. 24 BY MR. HANLY: 25 Q. And let me ask you, Doctor, is there, is

58 1 Frye Hearing - Dr. Lembke 2 there data from the Centers for Disease Control 3 concerning the increase of prescriptions along with 4 potentially adverse events? 5 Α Yes. And please describe for Justice Garquilo 6 7 what is, what is shown here in this, in this graph 8 with the three lines going from left to right. 9 This graph shows that as the sales of 10 prescription opioids increased between 1999 and 11 2010, so did opioid-related overdose deaths, as well 12 as the number of people presenting to addiction 13 treatment centers with opioid addiction. 14 Okay. So, just for the record, the 15 green line, which is at the top, reflects sales; is 16 that correct? 17 Yes. Α 18 Q. Of prescription opioids, yes? Yes. Yes, it does. 19 Α 20 Q. And the middle line is showing overdose 21 deaths; is that right, Doctor? 22 Yes, that's correct. 23 And the bottom line, the orange line is Ο. 24 showing treatment admissions for folks suffering 25 from opioid use disorder, true?

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                      Frye Hearing - Dr. Lembke
 2
              Α
                    True.
                    Okay. Now -- and this, is this CDC data
 3
               Q.
 4
       generally accepted by folks in the addiction
 5
       medicine area as being reliable?
 6
              Α
                    Yes.
 7
                    Did you -- did you use this as part of
               Q.
 8
       your methodology in reaching your Opinion Number 2
 9
       in this case?
10
              Α
                    Yes.
11
                    Okay. Now, did this phenomenon of the
12
       fourfold -- you can take that down, slide down,
13
       please.
14
                    Did this phenomenon that you've
15
       described as a fourfold increase in prescriptions,
16
       did this happen also in the State of New York?
17
                    Yes, it did.
              Α
                    MR. HANLY: Could we have Slide Number
18
19
               7, please.
20
       BY MR. HANLY:
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               Q.
                    Now, Slide Number 7 is titled, Amount of
22
       Opioids Prescribed in State of New York between 1997
23
       and 2016, almost a 20-year period, true?
24
               Α
                    Yes.
25
               Q.
                    And I'm sure Justice Garguilo -- I hope
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60 1 Frye Hearing - Dr. Lembke 2 Justice Garquilo can see this, but just explain, 3 very briefly, what do we see here? 4 Well, what we see here is that in 1997, Α 100 morphine milligram equivalent was prescribed per 5 person in the State of New York, and between 1997 6 7 and 2016 that increased almost fivefold. 8 MR. HANLY: Okay. Thank you. You can 9 take that slide down. 10 BY MR. HANLY: 11 Q. Now, Doctor, I want to talk a little bit 12 briefly, I hope, about the methodology and the bases 13 for your Opinion Number 3 in this case, which is 14 that the opioid industry misled doctors into 15 believing that opioids are more effective, et 16 cetera, okay? 17 А Yes. 18 And I noticed that part of the subtitle 19 of your book, Drug Dealer M.D., is how doctors were duped, correct? 20 21 A Yes. 22 And can you explain to the Court what 23 you meant by that, that the doctors were duped? 24 The doctors were duped by the 25 pharmaceutical opioid industry into believing that

61 1 Frye Hearing - Dr. Lembke opioids are safer than they really are and more 2 3 effective than they really are. 4 Okay. And in the book you talk about --Q. MR. PYSER: Your Honor, this is Steven 5 Pyser for Cardinal Health. I'm just going to 6 7 register an objection and apologies for the 8 late objection. 9 Vague on the question, the meaning of 10 what the pharmaceutical opioid industry is 11 here. That's not a term that really has a definition, and as distributors, we don't 12 13 believe that to be a part of anything. 14 I think the testimony needs to be more 15 specific. 16 THE COURT: I think the doctor is 17 basically testifying to her findings and 18 impressions, of course, subject to your 19 cross-examination. Am I missing the point of 20 your objection? If I am, tell me. 21 MR. PYSER: Yeah, just, your Honor, that 22 the term is vague. What this pharmaceutical 23 opioid industry is is not defined, and it's 24 being used in a way that is very unclear 25 through the testimony.

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                      Frye Hearing - Dr. Lembke
 2
                    THE COURT: Mr. Hanly, develop that
 3
               record.
 4
                    MR. HANLY: I can rephrase, your Honor.
 5
                    THE COURT: Rephrase it.
 6
       BY MR. HANLY:
 7
                   Doctor, in your book you discuss the
              Q.
 8
       alleged fact that certain companies engaged in the
 9
       manufacture of opioids created a false narrative; is
10
       that fair?
11
              A
                   Yes.
12
              Q.
                    Okay. And you -- and you've already
13
       explained what you meant by that part of the
14
       subtitle that says that the doctors were duped,
15
       okay?
16
                   Yes.
              Α
17
                    Okay. Now, in your book you talk about
18
       certain myths that certain opioid-related companies
       promulgated, correct?
19
20
              Α
                   Yes.
21
                    MR. HANLY: Okay. And let's take a look
22
               at an example of a piece of marketing
23
              material that, that we have as Slide Number
24
               8. Could we put up Slide Number 8, please.
       BY MR. HANLY:
25
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63 1 Frye Hearing - Dr. Lembke 2 Doctor, Slide Number 8 is actually a 3 page within a marketing brochure that was distributed under the auspices of something called 4 the American Academy of Pain Medicine. Do I have 5 that organization correct? 6 7 Yes. That was not the only organization 8 that was involved, but yes. 9 Okay. This also was a piece of Q. 10 marketing material that was used and disseminated by 11 a company called Janssen; is that correct? 12 Yes. This was promoted as an 13 educational booklet. 14 Okay. And so this is the authors of 15 this piece saying that, Number 1, it is a myth that 16 opioid medications are always addictive and that the 17 true fact, appearing right there, is that many 18 studies show that opioids are rarely -- and they emphasize the word rarely -- addictive when used 19 20 properly for the management of chronic pain, correct? 21 22 Yes, that's correct. That's what it 23 says. 24 Right. And as part of your opinions in Q. 25 this case, you came to the conclusion that that

64 1 Frye Hearing - Dr. Lembke 2 so-called fact is, in fact, a falsehood? 3 Α Yes. 4 And explain why it's false. Q. 5 Their use of the term rarely addictive Α 6 is not based on science. What we see is that 7 between 10 percent and 30 percent of patients 8 prescribed an opioid by a doctor for chronic pain 9 will develop some kind of opioid use disorder. 10 Q. Okay. 11 And, furthermore, this was known prior 12 to the publication of this so-called educational 13 pamphlet. 14 Okay. And the second myth that the 15 certain companies engaged in opioid manufacture said 16 was, in fact, a myth is that opioids make it harder 17 to function normally, and what the pamphlet says is, 18 no, that's not correct. When used correctly for appropriate conditions, opioids may make it easier 19 20 for people to live normally. That's what the answer 21 is supposed to be, right? 22 Α Yes. 23 Ο. And is that answer based upon the use of 24 your methodology reviewing 600 articles and your

20-odd years of clinical practice; is that a true

25

65 1 Frye Hearing - Dr. Lembke 2 statement? 3 Α No. 4 Okay. And then the last so-called myth 5 that the certain of these companies supported is 6 that opioid doses have to get bigger over time 7 because the body gets used to them, and they say, well, that's not true. The true fact is that unless 8 9 the underlying cause of your pain gets worse, such 10 as with cancer or arthritis, you will probably 11 remain on the same dose or need only small increases 12 over time. 13 Is that alleged fact true or false based 14 upon your methodology in this case? 15 That is false. Α 16 MR. HANLY: Now -- your Honor, did you 17 want to take a break at this point? 18 THE COURT: Talk to my stenographer, 19 when her fingers get tired. 20 MR. HANLY: I'm flying along. 21 THE COURT: As a matter of fact, she's 22 getting a note right now from me telling me 23 to give me a heads-up when she needs a break. 24 MR. HANLY: Okay. I just want to make 25 sure I'm doing what the Court wants.

66 1 Frye Hearing - Dr. Lembke 2 BY MR. HANLY: 3 All right. Now, Doctor, we actually Q. 4 created a slide that contains Dr. Lembke's myths 5 about opioids, true? 6 Α Yes. 7 MR. HANLY: Could we have Slide Number 8 9, please. 9 BY MR. HANLY: 10 And what you created here is, in part, 11 contradicts what we just saw from certain opioid-related companies, correct? 12 13 A Yes. 14 And we've already gone over this, but 15 very quickly, you say that it's a myth that the risk 16 of addiction is rare. You say it's a myth that 17 opioids are effective in treating chronic pain. 18 say it's a myth that no dose is too high. And you 19 say it's a myth of a concept called pseudoaddiction 20 which, am I correct, is the notion that if you're 21 craving more of the drug, you may not -- that may 22 not be addiction at all but simply your body crying 23 out for pain relief; is that correct? 24 Α Yes. I think pseudoaddiction means that 25 if you're manifesting many of the signs and symptoms

67 1 Frye Hearing - Dr. Lembke 2 of addiction, you're not really addicted, you're in 3 pain, and the solution is to give more opioids. 4 Okay. And we've already established Q. 5 what you did in terms of your methodology with 6 respect to Myth Number 1, that becoming addictive --7 addicted is rare. 8 With respect to Myth Number 2, that 9 opioids are effective in treating chronic pain, just 10 very briefly, was the methodology any different that 11 you employed? 12 Α No. 13 And how about with respect to your claim Q. 14 here that it's a myth that no dose is too high; did 15 you employ that same methodology? 16 Yes. Α 17 Did you look at -- did you look at 18 scientific papers published by people other than 19 you? 20 Α Yes. 21 Q. Okay. And the same with respect to Myth 22 Number 4, any difference in the methodology that you 23 used? 24 Α No. 25 Q. Basically two components of your

68 1 Frye Hearing - Dr. Lembke 2 methodology, is that correct, your review, in-depth 3 review of the substantial body of medical literature 4 taken together with your, what I'll call your 5 personal professional experience, meaning your clinical practice and your interaction with other 6 7 healthcare providers; is that fair? 8 Α Yes. 9 Now, let's, let's look at Slide Number 10, please, and tell Justice Garguilo, this is 10 11 headed, Prescription Opioids are as Addictive as 12 Heroin. That's rather a strong statement; isn't it, 13 Doctor? 14 Yes, it is. 15 And tell Justice Garquilo what we've 16 done here. We've pulled out these two, two 17 quotations, quotations from a medical paper by an 18 author named Harbaugh that appeared in the Journal 19 of Pediatrics in 2018. So what is the point of this -- these quotes? 20 There is consensus in the medical 21 22 profession that heroin is -- that prescription 23 opioids, Schedule II prescription opioids are as 24 addictive as heroin, that there's really no 25 difference between heroin and prescribed opioids for

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                      Frye Hearing - Dr. Lembke
 2
       pain.
 3
                   By the way, is the Journal of Pediatrics
 4
       based on your work in researching medical journals;
       is that a peer-reviewed journal?
 5
 6
                   Yes, it is.
 7
                   Does it have -- is it regarded as
              Q.
 8
       reputable?
 9
              A
                   Yes, it is.
10
                   Now, let's next look at Slide Number 11,
11
       which relates to your Opinion Number 4, and this,
12
       this is Opinion Number 4, the heading, There is no
13
       reliable evidence that opioids work for chronic
14
       pain. And in reaching that conclusion, what did you
15
       do?
16
                    I reviewed many, many articles, clinical
17
       trials, observational studies, epidemiologic studies
18
       looking at whether or not long-term opioid therapy
       is effective in the treatment of chronic pain.
19
20
                  And is this an article that you looked
              Q.
21
       at?
22
              Α
                   Yes.
23
                    Is -- and the journal is called Pain?
              Q.
24
              Α
                   Yes.
25
               Q.
                    Is that a peer-reviewed paper?
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70 1 Frye Hearing - Dr. Lembke 2 Yes. 3 Is it the only paper that you relied 4 upon in reaching your conclusion that there's no 5 reliable evidence that opioids work for chronic 6 pain? 7 Α No. 8 MR. HANLY: Okay. Sorry, your Honor. 9 just lost my track. 10 Could we put up Slide Number 12, please. 11 MS. STRONG: Your Honor, objection. 12 This is Sabrina Strong for Johnson & Johnson. 13 This is one of those documents, it appears, 14 your Honor, where they're relying upon 15 something that was submitted to us for the 16 first time yesterday at 4:40 p.m. from their 17 supplemental material considered list, and we 18 would object to any questions relating to 19 this document on this slide on that basis, 20 your Honor. 21 THE COURT: Mr. Hanly. 22 MR. HANLY: Again, your Honor, Ms. Strong is a leading member of the 23 24 national defense team, and in that capacity, she would have had access to the supplemental 25

71 1 Frye Hearing - Dr. Lembke 2 materials provided on August the 3rd in 3 connection with the West Virginia cases. 4 THE COURT: Ms. Strong, early on, did the Court not rule or direct an importation 5 of all of the information -- I'll call it 6 7 information -- all of the discovery that was 8 handed over and exchanged in the MDL handled 9 by Judge Polster to this Court; and if so, 10 was this thing, this piece of paper, this 11 document, a part of that exchange? 12 MS. STRONG: My understanding, your 13 Honor, is that he is referencing the West 14 Virginia case, not the MDL. I don't believe 15 we're in the case to which he is referring, 16 but, again, I want to double-check that, but 17 that's my understanding, your Honor. 18 So, no, I don't believe he's talking 19 about materials that were produced in the 20 MDL. 21 MR. PYSER: Your Honor, this is Steven 22 Pyser, Cardinal Health. I am in the West 23 Virginia case. That's why I raised it 24 earlier as well. If I'm understanding 25 Mr. Hanly correctly, what he's referring to,

72 1 Frye Hearing - Dr. Lembke 2 that is not the case before Judge Polster. 3 And as well, incorporating discovery into the 4 record does not mean that an expert relied on it. 5 We have a report in this case in New 6 7 York in which this document is not mentioned. 8 If it was mentioned in another case in 9 another opinion that takes different 10 positions, I do not believe that the witness 11 for the State can just incorporate every 12 report that Dr. Lembke has ever written, 13 including reports against Defendants -excuse me -- including reports in cases in 14 15 which some Defendants aren't even a part of. 16 So we also object to the inclusion of this 17 document. 18 THE COURT: I have a couple of points 19 I'd suggest. You all entered into a 20 Stipulation in connection with these 21 hearings, part and parcel of that Stipulation 22 was that any information, any documents that 23 made their way into evidence in this case to 24 which a party objects, that objection is

preserved in the event of a trial.

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Frye Hearing - Dr. Lembke 73

The second point -- Mr. Hanly, this is directed to you. This Court made it -- and, by the way, it's directed to all counsel. This Court, in the last go-around, referenced a case, Guerra, G-U-E-R-R-A, versus D-I-T-T-A, 220 New York Slip Opinion 03771, a Second Department case that just came down in July of this year, and I believe -- I don't believe I know that the Court suggested, certainly the last session, perhaps the session before that, that in connection with these hearings, the Court was focusing in on two very specific areas, whether or not the methodology can meet the requirements of general acceptance, and whether or not if the methodology is appropriately applied, the results can be deemed reliable.

Of course, as noted in the Ditta case, that the actual question, the actual issue of whether or not the opinion will ever make its way to the finder of fact at trial relies upon the foundation that is laid by the person offering the evidence or the lack of foundation by the person or the entities or

74 1 Frye Hearing - Dr. Lembke 2 the lawyers opposing it. 3 We're going a long way, we have been 4 going a long way in both the direct examination and the cross-examination, and 5 away from those two very, very basic 6 7 precepts, general acceptance and reliability. 8 The doctor is, of course, permitted to 9 -- all witnesses are permitted to, as a 10 matter of fact, they're required to set forth 11 their methodology, and the inference that the 12 person offering the evidence seeks to gain 13 from the Court, it's okay, it's generally accepted methodology, and whether or not the 14 15 testimony indicates that the appropriate use 16 of the methodology will result in a reliable 17 conclusion, period. 18 That's the step one in what I call the 19 "Fryebert" analysis. Step 2 will await, if 20 need be, a trial. So here's my point -- by 21 the way, Mr. Hanly, I ask this to everybody. 22 The Court, of course, has had an opportunity to review the decisions in the 23 24 MDL concerning this witness, and it broke 25 down to essentially two areas: a marketing

75 1 Frye Hearing - Dr. Lembke 2 causation and a gateway argument or 3 suggestion. 4 Are we beyond that in this case; 5 meaning, is there something beyond those two general areas that you seek to elicit from 6 7 this witness? I mean, I know I have nine 8 points, but do the nine points fit within 9 that framework that Judge Polster --10 MR. HANLY: I think it's slightly 11 broader at least than what your Honor just 12 articulated, because Dr. Lembke's opinions 13 include --14 THE COURT: Gateway. 15 MR. HANLY: Gateway, supply, the effect 16 of increased prescribing and so on. And, of 17 course, the whole issue of marketing 18 representations made by the Defendants. 19 Now, with respect to marketing causation 20 as Judge Polster opined, that's something 21 different from the ability of a witness, such 22 as Dr. Lembke, to testify based upon her, her 23 extensive work and her methodology, and her 24 interaction with physicians throughout the 25 United States that these marketing messages

76 1 Frye Hearing - Dr. Lembke 2 have an influence. 3 That's a different, that's a different conclusion than the conclusion under some 4 5 sort of marketing causation analysis. THE COURT: He was clearly impressed 6 7 with her credentials. I believe in the short version of his decision was as to marketing 8 9 causation in the absence of some kind of 10 marketing background, not only this witness, 11 but another witness would be prohibited, 12 although he does make it a point in his 13 decision to say, in all other respects, that 14 witness' opinions can be, can be pursued at 15 trial. 16 MS. STRONG: Your Honor. 17 THE COURT: Yes. This is Ms. Strong? 18 MS. STRONG: Yes. This is Sabrina Strong on behalf of Johnson & Johnson. 19 20 I would just note that what Mr. Hanly 21 said does not seem to comport with what Judge 22 Polster decided. I'm reading from his 23 opinion at page 12, and it says expressly 24 (READING:) The Court finds Lembke may not 25 testify regarding the effect that Defendants'

77 1 Frye Hearing - Dr. Lembke 2 marketing and promotional efforts had on a 3 doctor's prescribing practices. 4 He goes on to say he's excluding those opinions that purport to find Defendants' 5 marketing efforts resulted in or caused 6 7 increased sales and/or increased 8 prescriptions of opioids. 9 I think that's precisely what Mr. Hanly 10 was just referencing to you, your Honor, and 11 that is an issue. 12 I would agree that the scope of his 13 direct seems to be going far beyond what 14 we're talking about in terms of marketing 15 causation, which I think is what we're here for, your Honor, but I just wanted to make 16 17 that point for clarity. 18 THE COURT: And as I noted at page 12, 19 he also notes the Court's ruling does not in 20 any way affect Lembke's remaining opinions, 21 including the remainder of her 3rd and 5th 22 opinions regarding the inaccuracy of 23 statements and representations of Defendants' 24 marketing materials and other promotional and/or educational efforts. 25

| 1 | Frye Hearing - Dr. Lembke 78 |
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| 2 | Here's my ruling. I'll sustain your |
| 3 | objection. |
| 4 | And now we'll take a 15-minute break. |
| 5 | MS. STRONG: Thank you, your Honor. |
| 6 | (WHEREUPON, a short recess was taken.) |
| 7 | THE CLERK: Come to order. Part 48 is |
| 8 | back in session. |
| 9 | THE COURT: Remind the witness, please. |
| 10 | THE CLERK: Oh, I'm sorry. I remind |
| 11 | you, Doctor, you are still under oath. |
| 12 | MS. STRONG: Your Honor, it's Sabrina |
| 13 | Strong. One note before we begin. |
| 14 | THE COURT: Wait a second. Say it |
| 15 | again. |
| 16 | MS. STRONG: Just one note before we |
| 17 | begin. Can we have a sense of how much |
| 18 | longer Mr. Hanly intends to go? |
| 19 | This is one of those witnesses where we |
| 20 | requested two days with her, but we were |
| 21 | allotted one, and so we're concerned about |
| 22 | the amount of time. He said he's at Opinion |
| 23 | 3 of 9, I believe. Can we have some |
| 24 | understanding in that regard? |
| 25 | THE COURT: Perhaps everyone will heed |

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                      Frye Hearing - Dr. Lembke
 2
              the Court's instruction. I know Ms. Conroy
 3
              did during her direct examination. So
              perhaps everybody will get on board the same
 4
 5
              way.
                   If I need more, I'll let you know. All
 6
               right. I'd like to finish this witness
 7
 8
               today.
 9
                   MR. HANLY: Judge, I'm happy to
10
              volunteer. I think maybe I have another hour
11
               tops.
12
                   THE COURT: Okay.
13
                   MS. STRONG: Okay. Good to know.
14
                   THE COURT: He said about another hour
15
              tops.
16
                   Do you know what "tops" means in lawyer
17
               language? Okay. Let's go from there. Go
18
               ahead.
19
                   MS. STRONG: Thank you, your Honor.
20
       BY MR. HANLY:
21
              Q.
                   Doctor, I want to briefly go back to
22
       cover some aspects of the academic detailing that
23
       you discussed earlier, because it figures in the
24
       methodology and the bases for your opinion.
25
                   In the course of that academic
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80 1 Frye Hearing - Dr. Lembke 2 detailing, did you have available to you examples of 3 marketing statements made by certain of the opioid manufacturers and other opioid-related companies? 4 5 Α Yes. And did you study those statements in 6 7 comparison to the medical literature that you 8 reviewed? 9 A Yes. 10 For example, if a marketing statement was to the effect that addiction is a rare 11 12 occurrence, what corresponding scientific literature 13 would you go to to see whether that statement was 14 true or not? 15 I would go to the literature looking at 16 the risk of addiction in patients treated with 17 prescription opioids. 18 Does the body of medical literature that 19 you relied upon, is there anything novel about these 20 peer-reviewed papers such that they could not form a 21 basis for -- a proper basis for an opinion that you 22 would have concerning addiction? 23 Well, many of the papers that purported 24 to provide evidence on the risk of addiction were 25 not actually founded in a methodology that could

81 1 Frye Hearing - Dr. Lembke 2 reliably report that outcome. 3 But my question, Doctor, is, is the use 4 of scientific literature written by people other than you, is that a novel basis that an 5 investigator, a researcher would have regard to? 6 7 No, that's not novel. 8 Q. Is it -- is there any degree of 9 reliability that is ascribed to that body of 10 literature, assuming it's all or mostly peer-11 reviewed? 12 Yes. So that's a foundational precept 13 of academic scholarly work is to critically review 14 the literature and that's --15 Now -- now, the marketing materials that 16 you have reviewed in this case and that you reviewed 17 prior to being involved in this case in preparing 18 your, your book, did you try to determine when you 19 were doing the academic detailing whether your own 20 experience was similar to the experiences of other 21 doctors who may or may not have received these sorts 22 of marketing materials? 23 Α Yes. 24 And was there any consistency, or was 25 there inconsistency?

82 1 Frye Hearing - Dr. Lembke 2 I heard a lot of inconsistency from my 3 peers. 4 Did that have any effect on your desire Q. to continue the program of academic detailing? 5 6 Yes. That motivated me to continue 7 academic detailing. 8 Q. Did academic detailing to correct these 9 misconceptions take up a small amount of time, a 10 medium amount of time, a considerable amount of 11 time, or what? 12 A considerable amount of time, yes. Ιn 13 the last four to five years, I've spent a 14 considerable amount of my professional time on this 15 project. 16 When you were academic detailing, did 17 you receive from physicians, to whom you were 18 providing this detailing, any anecdotes or recitations of experiences they had had in receiving 19 and reviewing literature about the risks and 20 benefits of opioids? 21 22 Yes. I heard a large chorus of voices 23 expressing a very similar experience and impression 24 as my own. 25 Q. When you were taught in medical school,

83 1 Frye Hearing - Dr. Lembke 2 were you taught anything about the addiction 3 propensity of opioid medications? 4 Α None. 5 And what year, again, did you finish your medical school? 6 7 Α 1995. 8 Q. Are you aware that on December the 12th 9 1995 the FDA approved the manufacture and sale of a 10 drug called OxyContin? 11 Α Yes. 12 Now, I want to discuss briefly your --Q. 13 the basis for your opinion and the methodology used 14 to arrive thereat concerning whether a patient would 15 need to have increased doses of an opioid over time 16 and whether such increased doses would put the 17 patient at risk of harm, okay? 18 Α Okay. 19 Q. And among your opinions is, in sum and 20 substance, that very opinion that increased doses 21 put the patient at risk of harm; is that right? 22 Α Yes. Did you just pull that opinion out of 23 Q. 24 the air? 25 Α No.

84 1 Frye Hearing - Dr. Lembke 2 Is that opinion shared by anybody else 3 in the world, that you're aware of? 4 Α Yes. 5 Is that opinion, has the CDC, the Center For Disease Control, ever issued any data, or 6 7 graphs, or anything else concerning whether 8 increased dosages over time of opioids puts the 9 patient at increased risk? 10 Α Yes. 11 MR. HANLY: Okay. And could we have Slide Number 13, please. 12 13 BY MR. HANLY: 14 Doctor, this slide is entitled Higher 15 Dosage, Higher Risk, and it reads in part, and the 16 footnote indicates that this is a publication made 17 by the Centers for Disease Control and Prevention. 18 Do you see that in Footnote Number 1? 19 Α Yes. 20 Okay. And we quoted a little bit from, 21 from it (READING:) Higher dosages of opioids are 22 associated with higher risk of overdose and death, 23 even relatively low dosages, 20 to 15 morphine milligram equivalence, MME, per day, increased risk, 24 25 higher doses haven't been shown to reduce pain over

85 1 Frye Hearing - Dr. Lembke 2 the long term. Did I read that correctly? 3 Α Yes. And what do we see? Explain to me and 4 Q. 5 Justice Garquilo what we're seeing in these, in these two graphs. 6 7 So the graph on the left with the purple Α 8 line shows that as you go from low doses of 9 prescription opioids to higher doses of prescription 10 opioids, the risk of overdose death due to those 11 opioids increases. 12 The graph on the right shows that as the 13 yellow line shows, that as you go from lower doses 14 of opioids to higher doses of opioids, the risk of 15 any opioid overdose event increases, including 16 nonlethal overdoses that often result in patients 17 showing up in emergency rooms unconscious. 18 So in both graphs what we're seeing, 19 would it be fair to say, you take more of the stuff, you're increasing your risk of a bad outcome? 20 21 Α Yes. 22 And this Center for Disease Control 23 piece of a report actually has two other footnotes referencing two other papers supportive of the 24 25 statement in this document. Do you see that, three

86 1 Frye Hearing - Dr. Lembke 2 and four? 3 Yes. The Bonert paper, Number 3, the 4 graph on the left comes from the Bonert paper, and the graph on the right comes from the Dunn paper. 5 So my point is that this CDC publication 6 7 is not the only document that you looked at or 8 relied upon in reaching your opinion that increased 9 dosage increases the risk of bad outcomes; is that 10 fair? 11 These are not the only documents I looked at. That is correct. 12 13 And, in fact, so we have CDC, we have Q. 14 Bonert, we have Dunn, that's a total of three, but 15 are there other papers peer-reviewed that are 16 reliable that reach the same or similar conclusion 17 that more drug that you give, the likelihood is 18 you're going to have a bad event? 19 Α Yes. 20 And, by the way, Bonert is a 21 publication, it looks like JAMA. Is that the Journal of the American Medical Association? 22 23 Α Yes, it is. 24 0. Is that a well-known journal? 25 Α Yes.

87 1 Frye Hearing - Dr. Lembke 2 And the Dunn paper is from something 3 called the Annals of Internal Medicine, right? 4 Α Yes. 5 Are those two publications, the Journal of the American Medical Association and the Annals 6 7 of Internal Medicine, are they both peer-reviewed? 8 Yes, they are. Α 9 Are they regarded in the field of Q. 10 medicine as publications that will reliably publish 11 material that those publications deem to be valid, truthful? 12 13 Α In general, yes. 14 Did you -- did any of these three 15 publications, were any of these relied upon by you 16 as a part of your methodology in coming to the 17 higher dosage, higher risk opinion that you set forth? 18 19 Α Yes. 20 Now, have you -- we talked earlier about 21 the marketing material that says that addiction is 22 rare; do you remember that? 23 Α Yes. 24 And did you, in the course of your work 25 in connection with this case, did you look at, try

88 1 Frye Hearing - Dr. Lembke 2 to figure out what the real percentage risk of 3 addiction is to patients administered opioid pain medications? 4 5 A Yes. 6 And was your methodology any different 7 in trying to come up with some statistics about the 8 risk of addiction, was it any different from the 9 methodology you described at the very beginning of 10 this examination where you told Justice Garguilo 11 about the importance of a thorough review of all 12 parts of the pieces of medical literature? Did you 13 do anything different in connection with --14 Α No. 15 No? Is that what you said, Doctor? Q. 16 That's right. Sorry. Α 17 Okay. And did you, in the course of Q. 18 your work, did you come across any papers that themselves tried to pull together the results of a 19 20 number of other papers and set forth in that paper what the actual risk is of addiction related harms 21 22 from opioids? 23 Α Yes. 24 MR. HANLY: Okay. Can we put up Slide 25 14, please.

89 1 Frye Hearing - Dr. Lembke BY MR. HANLY: 2 3 Now, Slide 14 is a chart that appears to Q. 4 have a source as two papers; do you see that? 5 Α Yes, I do. 6 So one paper is by someone named, 7 Vowles, and the other by someone named Boscarino; is 8 that correct? 9 A Yes. 10 So please tell Justice Garquilo and us, 11 what are we seeing in this graph, and what is the significance of this to your opinions, if any? 12 13 So the study population being examined 14 in both of these papers was specifically patients 15 being prescribed opioids for chronic pain in order 16 to determine the risk of addiction to opioids in 17 that population. 18 And what we see here is that the Vowles 19 article in 2015, which is in blue, found that 20 approximately eight to 12 percent of chronic pain 21 patients being prescribed opioids long-term will 22 become severely addicted to opioids, and 23 approximately 21 to 29 percent of those individuals 24 will misuse opioids. 25 Boscarino was another study that

90 1 Frye Hearing - Dr. Lembke 2 specifically looked at the risk of addiction in this 3 population and found similar numbers based on the DSM-IV and the DSM-V criteria. 4 5 Would any of these percentages 8 to 12, Q. 13.2, 21 to 29, and 41.3, would any of those 6 7 percentages, based upon your work over the decades 8 in addiction medicine, be regarded as rare instances 9 of adverse events? No. This would not be considered to be 10 11 This would be considered to be common. 12 Q. Now -- thank you. You can put that 13 slide down, please. 14 Doctor, is there any amount of --15 withdrawn. 16 In the course of your work in connection 17 with this case, did you look at the question of 18 whether limited use of opioid painkillers could 19 result in an adverse event for the patient taking 20 the medication? 21 A Yes. 22 And did you look at any papers, 23 peer-reviewed papers that relate to the question of 24 limited use of the drug leading to a more persistent 25 use and to an opioid use disorder?

91 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 MR. HANLY: Okay. Can we put up Slide Number 15, please. Judge, there's only 20 4 5 slides, so we're moving along pretty well. 6 THE COURT: Thank you. 7 BY MR. HANLY: 8 Q. And this slide is titled -- entitled: 9 Even Limited Medical Exposure Can Lead To Persistent 10 Use And OUD. That's opioid use disorder. 11 And tell the Judge what this is 12 depicting. 13 So these are data showing that patients 14 who are prescribed opioids for surgery, for example 15 in the Brummett paper, is thought to be an acute and 16 self-limiting cause of pain, that 5.9 to 6.5 percent 17 of those individuals will still be taking 18 prescription opioids a year later. 19 So the important thing here is that 20 they're not being diagnosed in this study with opioid use disorder addiction, but they're still 21 22 taking the opioids a year later when one would have 23 thought that their need for opioids would long be 24 over. 25 That's relevant because we do know that

92 1 Frye Hearing - Dr. Lembke 2 the longer that patients are taking opioids, the 3 higher their risk of adverse health consequences, including, but not limited to, addiction. 4 The same thing with the Delgado paper 5 showing that a very limited prescription for opioids 6 7 for an ankle sprain, for example, to the, you know, 8 relatively benign and self-limiting injury at 4.9 9 percent of individuals receiving an opioid for that 10 type of injury will still be taking opioids a year 11 later. 12 Schroeder actually looked at whether or 13 not young people exposed to opioids through a dental 14 procedure will develop opioid use disorder within 15 one year and found that 6 percent of those 16 individuals exposed to opioids for a wisdom tooth 17 removal will be diagnosed with an opioid addiction 18 within the year and 10 percent for women. 19 Q. Thank you, Doctor. 20 And this chart has three footnotes, and 21 the footnotes are all to published papers, correct? 22 That is correct. Okay. And the first one is a Journal of 23 Q. 24 the American Medical Association, the surgery 25 journal, correct?

93 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And the second, Delgado is a paper Q. 4 published in the Annals of Emergency Medicine? 5 Α Yes. And the final footnote to Schroeder 6 7 published in the Journal of the American Medical 8 Association, Internal Medicine Journal, correct? 9 Α Yes. 10 All three of these journals of low 11 regard, high regard, medium regard? 12 These are all high regarded competitive 13 journals. 14 Are they all peer-reviewed? Q. 15 Α Yes. 16 Did you rely upon the findings of these 17 journals in connection with your work in this case? 18 Α Yes. 19 Is there any consensus in the medical 20 literature relating to addiction medicine, including 21 any reports of any organizations concerning the 22 question of whether there's a relationship between 23 increased supply of opioids in the country as a whole and adverse outcomes? 24 25 Α Yes.

94 1 Frye Hearing - Dr. Lembke 2 And did you look at that issue in 3 connection with your work in this case, the 4 relationship between the supply and adverse outcomes for particular patients? 5 6 Α Yes. And are there publications, peer-7 8 reviewed or otherwise, that address this issue? 9 Α Yes. 10 MR. HANLY: Could we put up Slide Number 11 17, please. 12 BY MR. HANLY: 13 And here what we've done with this slide Q. 14 is we've put two quotations from two separate 15 reports side by side. On the left is a quotation 16 from a report of the Association of Schools and 17 Programs of Public Health, the ASPPH, correct? 18 Α Yes. Please explain to Justice Garguilo what 19 20 that association is. 21 So it's an authoritative body on public 22 health issues, including numerous very prominent 23 public health universities, like Columbia, that came 24 together to look at the opioid crisis to try to 25 figure out what caused it and how to remedy it.

95 1 Frye Hearing - Dr. Lembke 2 And they published a report bringing 3 science to bear on opioids from which this quote was 4 taken. 5 And this quote, paraphrasing, is that Q. the tremendous expansion of the supply led to scaled 6 7 increases in prescription opioid dependence and to 8 the transition of many to illicit opioids, including 9 fentanyl, which have subsequently driven exponential 10 increases in overdose, correct? 11 Α Yes. 12 Q. And that quote came from a report of 13 this organization published in 2019? 14 Yes. Α 15 On the right-hand side we have a quote 16 from something called the National Academies of 17 Sciences, Engineering and Medicine, sometimes called 18 NASEM, correct? 19 Α Yes. 20 And just very briefly, what is that 21 organization? 22 Again, it's an authoritative body of 23 experts who come together to weigh in on looking at 24 the science regarding major issues related to 25 science, engineering and medicine. In this case,

96 1 Frye Hearing - Dr. Lembke 2 this was a paper they wrote on the opioid crisis. 3 And that essentially -- paraphrasing it, 4 it says the data presented make a prima facie case that heavy promotion of opioid prescribing by drug 5 manufacturers, including misleading claims by some, 6 7 and substantially increased prescribing by 8 physicians were key contributors to the increase in 9 misuse, OUD, and accompanying harms. 10 Did I read that correctly? 11 Α Yes. 12 Q. And did you, with respect to these two 13 publications, did you read the whole publication, or 14 did you just look at the abstract? 15 Yes, I read the whole publication. 16 And did you, did you rely upon these Q. 17 publications, these specific publications concerning 18 opioids in the course of carrying out your steps, 19 your methods for reaching your opinions? 20 Yes, but not exclusively. 21 Q. Okay. Well, tell Justice Garquilo again 22 what the other reliance was. I relied on the CDC data showing that as 23 24 opioid prescriptions increased, so did 25 opioid-related overdose deaths and treatment

97 1 Frye Hearing - Dr. Lembke 2 admissions. 3 I also relied on my clinical experience 4 and my interviews with many of my colleagues in 5 medicine. And in my clinical experience, I saw 6 vastly increased opioid prescribing in the 1990s and 7 more and more patients coming in with opioid addiction, more and more patients dying from opioid 8 9 overdose. 10 So, again, you analyzed the literature Ο. 11 written by folks other than you, and you relied on 12 what I've called your personal professional 13 experience over more than two decades? 14 Yes. That's right. 15 In connection with your publications, we 16 already discussed your research letter regarding 17 prescribing to Medicare patients, correct? 18 Α Yes. 19 Ο. And there was another paper that you 20 wrote and that was published concerning 21 overprescribing; do you recall? 22 Α Yes. 23 And could you just tell Justice Garguilo Q. 24 what that second paper was about. 25 Α We looked at which doctors in the United

98 1 Frye Hearing - Dr. Lembke 2 States are prescribing opioids to try to detect 3 whether or not there were geographic differences or 4 differences by specialty. 5 And what we found was that by volume, primary care doctors prescribe the most opioids. 6 7 That makes sense, because there are more of them 8 than other types of doctors. And by specialty, it's 9 pain medicine doctors that also -- that prescribe 10 the most opioids. 11 But importantly what we saw was that there was not a small subset of so-called pill 12 13 doctors driving the increased prescribing, that 14 there was a wholesale paradigm shift and all doctors across all specialties were prescribing large 15 16 amounts of opioids. 17 We also looked at geographic regions and 18 found that there were no differences geographically. 19 So all across the United States, there was an 20 enormous uptick in opioid prescribing based on the 21 data that we looked at. That was our findings. 22 THE COURT: Doctor, what constitutes 23 overprescribing? 24 THE WITNESS: Well, overprescribing, 25 certainly prescribing more than we were in

99 1 Frye Hearing - Dr. Lembke 2 the 1990s, despite the fact that we have not 3 seen an increased need for analgesia in this 4 country. 5 Overprescribing we can also look at other countries, other developed nations and 6 7 see how our prescribing compares to their 8 prescribing and see that we are prescribing 9 in some cases ten times more than other 10 developed nations with aging populations and 11 similar needs for analgesia. 12 So when I talk about overprescribing, 13 I'm really comparing the way we prescribe now 14 to the way that we prescribed before the 15 Defendants launched their campaign in the 16 1990s promoting opioids. 17 THE COURT: Okay. Thank you. 18 BY MR. HANLY: 19 Ο. Doctor, you, in the course of your answer that you just gave before Justice Garguilo's 20 21 question, you talked about consistency of 22 prescribing, prescribing habits across the nation, 23 right? 24 Α Yes. 25 Now, did you look at any statistics on

100 1 Frye Hearing - Dr. Lembke 2 the changes in the rate of prescribing in either New 3 York State and/or Suffolk County and/or Nassau 4 County? 5 Α Yes. 6 And can you just generally, without 7 holding you to specific percentages, just describe 8 generally for Justice Garguilo what you found and 9 the extent to which, if any, that the trends, if 10 any, that you saw are different from national 11 trends? So we saw no difference in New York 12 13 State compared to national trends. New York is in 14 no way an outlier in terms of this phenomenon. And 15 the same is true for Suffolk and Nassau County. 16 Now, Doctor, Justice Garquilo mentioned, Q. 17 and you wrote in your book, and it's referred to 18 elsewhere concerning a phenomenon or claimed 19 phenomenon called the gateway effect, true? 20 Α Yes. 21 Just for clarity, would you just explain 22 briefly what the gateway effect is? Patients who are prescribed opioids for 23 24 a medical condition can go on to misuse the opioids 25 that they have been personally prescribed, which

101 1 Frye Hearing - Dr. Lembke 2 then subsequently can lead to a severe opioid 3 addiction, including progression to the use of 4 heroin and other illicit opioids. 5 Is the gateway effect, does it have any Q. 6 acceptance, general acceptance or otherwise in the 7 medical community to describe the phenomenon you 8 just described? 9 Yes. I would say it's strongly accepted 10 in the medical community to describe what I just described. 11 12 Q. It's not a term that you just invented; 13 is it? 14 Α No. 15 Is there support, is there reference in 16 the medical literature to the gateway effect? 17 Α Yes. 18 MR. HANLY: Could we put up Slide 18, 19 please. 20 BY MR. HANLY: Now, Slide 18, am I correct, Doctor, 21 Q. 22 this is -- we've pulled out some quotes from this 23 National Academies report. It's called a consensus study report from NASEM, and it's entitled Pain 24 25 Management and the Opioid Epidemic.

102 1 Frye Hearing - Dr. Lembke 2 And the quote, first quote we have is: 3 A preponderance of evidence suggests that the major 4 increase in prescription opioid use beginning in the late 1990s has served as a gateway to increased 5 heroin use. 6 7 And then below that, we pulled out the 8 quote: In any related nature of the prescription in 9 the illicit opioid epidemic means that one cannot be 10 addressed separately from the other. 11 Did I read that correctly? 12 Α Yes. 13 And the second one, would that -- well, 14 just state to the Court what the second sentence 15 actually means in terms of prescription versus 16 illegal drugs. 17 It means that to really understand this 18 opioid epidemic, we have to look at the way that we have been prescribing prescription opioids in the 19 20 house of medicine. 21 That the problem of addiction and the 22 problem of chronic pain and even nonchronic pain 23 treated with opioids, those problems are deeply 24 interrelated. 25 And, Doctor, are there any studies that

Q.

103 1 Frye Hearing - Dr. Lembke 2 you're aware of that have looked at the question of 3 gateway effect in the State of New York? 4 Α Yes. 5 MR. HANLY: Could we put up Slide Number 19, please. 6 7 BY MR. HANLY: 8 Q. Now, here we have some quotes from a 9 paper by someone named Lankenau in the International 10 Journal of Drug Policy; do you see that? 11 Α Yes. 12 Q. And this study was actually a study of 13 intravenous drug users in the City of New York and 14 the City of Los Angeles; is that true? 15 Α Yes. 16 And we pulled out two quotes. One at Q. 17 the top, paraphrasing, initiation into opioid misuse 18 was facilitated by easy access via participant's own 19 prescription, family or friends, and occurred 20 earlier than misuse of other drugs, of other illicit 21 drugs. Prescription opioid misuse was a key feature 22 of trajectories into injection drug use and/or 23 heroin use. 24 Did I read that correctly? 25 Α Yes.

104 1 Frye Hearing - Dr. Lembke 2 And then the second is the scientific 3 literature has identified several specific 4 subpopulations involved in prescription opioid 5 misuse and diversion that are so diverse that it is 6 not feasible to study them in a single 7 investigation. 8 High school students, college students, 9 older persons and women, most of whom initially 10 obtain a prescription drug via legitimate medical practices, correct? 11 12 A Yes. 13 Did you rely on this study for your 14 opinion relating to the so-called gateway effect? 15 Α Yes. 16 Is this study, is this paper a 17 peer-reviewed paper? 18 Yes, it is. Is this a reliable, or highly regarded, 19 20 or lowly regarded publication? This is a reliable source. 21 Α 22 Q. What's happened between 2010 and 2017 with respect to New York State deaths from opioids? 23 24 Α There has been an increase in 25 opioid-related overdose deaths in the State of New

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105
 1
                     Frye Hearing - Dr. Lembke
 2
       York in that timeframe.
 3
                   MR. HANLY: Slide Number 20, the last
 4
              slide, please.
 5
       BY MR. HANLY:
 6
              Q. Doctor, I guess it's pretty clear what
 7
       this shows, but why don't you explain to Justice
 8
       Garquilo and us.
              A This shows that between 2010 and 2017
 9
10
       the number of opioid-related overdose deaths in
11
       persons aged 25 to 44 increased more than fourfold
12
       in the State of New York.
13
                  And in a very -- in a slide very early
              Q.
14
       in the examination, did we see an increase over
15
       roughly the same time period in the number of
16
       prescriptions written in New York State?
17
              Α
                   Yes.
18
                   MR. HANLY: Thank you, Doctor. That's
              all I have.
19
20
                   THE WITNESS: Thank you.
21
                   THE COURT: Ms. Strong, it's almost
22
              12:30. Do you want to get started, or would
23
              you prefer starting after the luncheon
24
              recess?
25
                   MS. STRONG: Let's just start after the
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| 1 | Frye Hearing - Dr. Lembke 106 |
|----|---|
| 2 | luncheon recess, your Honor. |
| 3 | THE COURT: Okay. We'll resume at 1:45. |
| 4 | MS. STRONG: Thank you, your Honor. |
| 5 | (WHEREUPON, after a luncheon recess, the |
| 6 | following was had:) |
| 7 | MR. HANLY: Your Honor, before |
| 8 | Ms. Strong begins, can I put something on the |
| 9 | record? |
| 10 | THE COURT: Yes. First, remind the |
| 11 | witness, then you can put something on the |
| 12 | record. |
| 13 | THE CLERK: Doctor, I remind you you're |
| 14 | still under oath. |
| 15 | THE WITNESS: Thank you. |
| 16 | MR. HANLY: Your Honor, I just wanted to |
| 17 | place on the record, we had a dispute earlier |
| 18 | in the examination concerning Slide Number |
| 19 | 12. Representation was made by defense |
| 20 | counsel, in effect, that we were ambushing |
| 21 | them, they hadn't seen it. |
| 22 | I wish to point out to the Court and |
| 23 | counsel that this slide, Exhibit 12, was a |
| 24 | joint exhibit, Defendants' and Plaintiffs' |
| 25 | Exhibit in the MDL, bearing number 17232, and |

that exhibit, joint exhibit list was created and filed on September 25th 2019, which is a year ago.

THE COURT: Miss Strong, there was an indication that that piece of paper, that document, that thing, that exhibit was only used in West Virginia and not part and parcel of the MDL in Ohio, I just heard something otherwise.

MS. STRONG: I think the argument he's trying to make, your Honor, is that we knew of that underlying document period and the abstract. The question here is was that a document that Dr. Lembke relied upon in support of her opinions.

There are millions and millions of documents in this litigation, your Honor, and the question that we are here to address today is the basis for Dr. Lembke's opinions, and my point is that we -- the rules do not allow for us to be sandbagged by documents being presented to us the night before and saying she, too, is relying on these additional documents. That's the point, your

108 1 Frye Hearing - Dr. Lembke 2 Honor. 3 THE COURT: Okay. So now we've heard 4 ambushed and sandbag, all right. MS. STRONG: I know you don't like those 5 types of terms, but I think this is classic 6 7 sandbagging, so I don't use those terms 8 lightly, your Honor. 9 MR. SHKOLNIK: If I may, your Honor, 10 Napoli Shkolnik, first of all, this is New 11 York, and our rules do allow us to rely upon authoritative articles that come up that 12 13 become available. There's no prejudice here. 14 I think that's the rule in New York. 15 It is not sandbagging. I don't think 16 it's appropriate to use here. They knew 17 about this study, they knew about everything 18 that we've listed for them, and it's 19 inappropriate to suggest that it can't be 20 utilized in this process before trial, which 21 we could have supplemented even at that 22 point. I just wanted to state based on New 23 York practice. 24 THE COURT: If you were sitting here, 25 what should I do?

| 1 | Frye Hearing - Dr. Lembke 109 |
|----|--|
| 2 | MR. SHKOLNIK: You've already done it, |
| 3 | your Honor. It's in the record. You'll |
| 4 | consider it, use it for what it's worth, and |
| 5 | it's really a nonissue. |
| 6 | THE COURT: Here's a fair compromise. |
| 7 | If accepted, it will go to weight, to the |
| 8 | weight of the evidence, and not to the |
| 9 | whatever the opposite of the weight is. |
| 10 | MR. SHKOLNIK: And I'm sorry for talking |
| 11 | through the mask, I apologize. |
| 12 | THE COURT: Doctor, are you ready? |
| 13 | THE WITNESS: Yes. |
| 14 | THE COURT: Miss Strong, go ahead. |
| 15 | MS. STRONG: And, Mr. Pyser, did you |
| 16 | want to say something before I begin? I just |
| 17 | didn't want to interrupt. Because I see you |
| 18 | on my screen. |
| 19 | MR. PYSER: No, that's okay. |
| 20 | MS. STRONG: Okay. Thank you. |
| 21 | THE COURT: Did I step on your order? |
| 22 | MS. STRONG: No. No, no. You're |
| 23 | doing it correctly. It's just Mr. Pyser is |
| 24 | up on my screen, and I know he's examining |
| 25 | today, I didn't know if he wanted to say |

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1
                                                           110
                      Frye Hearing - Dr. Lembke
 2
               anything more before we begin, your Honor.
 3
                    THE COURT: He's very big on my screen,
 4
               too.
 5
                    MR. PYSER: And I apologize to all of
 6
               you.
 7
       EXAMINATION BY
 8
       MS. STRONG:
 9
                   Good afternoon, Dr. Lembke.
              Q.
                    Good afternoon.
10
                    My name is Sabrina Strong, and I
11
12
       represent Johnson & Johnson and Janssen in this
13
       litigation. I want to turn first to some specifics
14
       about your training and experience.
15
                    You're not an economist, correct?
16
                    That is correct.
              Α
17
                   You do not have a degree or training in
              Q.
       marketing, correct?
18
                    That is correct.
19
              A
20
                    You do not have any employment
       experience working in the field of pharmaceutical
21
22
       marketing; do you?
23
              Α
                   No.
24
                    You don't belong to any professional
25
       associations in the field of pharmaceutical
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111
 1
                      Frye Hearing - Dr. Lembke
 2
       marketing either, correct?
 3
              Α
                   That's correct.
                   You also do not have any experience
 4
               Q.
 5
       regarding FDA regulations that govern pharmaceutical
 6
       marketing, correct?
 7
              A
                   That's correct.
 8
               Q.
                   You do not have any degrees or training
 9
       in pharmacoeconomics?
10
                    Since I don't know what that is, the
11
       answer is no.
12
              Q. We'll skip that.
13
                    You're aware that there is a scientific
14
       field called econometrics, correct?
15
              Α
                   Yes.
16
                   Are you aware that that field applies
17
       statistical methods to economic data?
18
              Α
                   Yes.
19
              Q.
                   But you do not have any degrees or
       training in econometrics of sales or marketing,
20
       correct?
21
22
                    That is correct.
23
               Q.
                   Okay. So you're testifying here today
24
       as a retained expert for the Plaintiffs, which in
25
       this case it's the State of New York, Nassau County,
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1
                                                           112
                      Frye Hearing - Dr. Lembke
 2
       Suffolk County, correct?
 3
              Α
                   Yes.
                   But before this case, you were retained
 4
               Q.
 5
       by the Plaintiffs in the federal multidistrict
 6
       litigation pending in Cleveland, Ohio, correct?
 7
              Α
                   Yes.
 8
               Q.
                   You submitted a report in connection
 9
       with that MDL proceeding, right?
10
              Α
                    Yes.
                    (Video disconnected.)
11
12
                    THE COURT: We're back, doctor, to a
13
               degree.
14
                   MS. STRONG: It sounds like everybody
15
               got kicked off, your Honor; is that right?
16
                    THE COURT: Yes. We're almost back on.
17
               They're just testing.
18
                   MS. STRONG: Ready, your Honor.
                    THE COURT: Back on board. Let's go.
19
20
                   MS. STRONG: Okay.
21
               Q.
                    So I was just asking you, Dr. Lembke,
22
       about the report you submitted in the MDL, and you
23
       confirmed that you did submit a report in the MDL
24
       proceeding, correct?
25
              Α
                   Yes.
```

113 1 Frye Hearing - Dr. Lembke 2 Okay. And there are some structural 3 differences between your report in the MDL and your 4 report here, but the opinions in both are the same, 5 correct? 6 Α Yes. 7 You understand that Judge Polster, in 8 the federal MDL proceeding, ruled that he would not 9 be permitted to opine on marketing causation in his 10 court, because you do not have the marketing 11 expertise necessary to offer those causation opinions, correct? 12 13 A Yes. 14 Okay. And you have distinguished the 15 question of whether opioid marketing material was 16 consistent or inconsistent with scientific evidence 17 from the question of causation, correct? 18 Α Yes. MS. STRONG: Okay. And so we put 19 20 together a demonstrative that draws out that distinction. 21 22 And, Pam, if you're able to, can you 23 pull up Slide 1, and I believe it's being 24 handed out in the court at this time as well, 25 or I would ask Mr. Asher to do so.

114 1 Frye Hearing - Dr. Lembke 2 And so I'd like you to look at these 3 questions, Dr. Lembke. 4 Question 1 is: Was each Defendant's promotion, if any, informed by scientific evidence? 5 6 Question 2: If not, did misleading 7 promotion by any Defendant cause doctors to write medically inappropriate prescriptions? 8 9 And then there's a third question, apart 10 from that distinction that you made between 1 and 2, 11 the third question is: Did those prescriptions, if any, lead to opioid addiction, misuse or overdose? 12 13 Do you see those questions, Dr. Lembke? 14 Yes, I do. 15 You spent a considerable amount of time 16 with Mr. Hanly talking about question 1, but I want 17 to focus on questions 2 and 3. 18 And so with that, Pam, if you can pull 19 that down, and I'll ask you some questions focusing 20 on that second question. So let's talk about a doctor's decision 21 22 to prescribe medications to a patient. 23 At a high level you agree that opioid 24 prescribing practices depends largely on the doctor, 25 correct?

115 1 Frye Hearing - Dr. Lembke 2 Α No. 3 Well, you would agree that there is a 4 huge variation in opioid prescribing across the 5 country and it continues to depend largely on the doctor, right? 6 7 Α No. 8 Q. Okay. Do you recall being deposed in 9 this case, Dr. Lembke, on January 16th 2020? 10 Α Yes. 11 Okay. And I would like to show you a Ο. 12 portion of your deposition testimony. For your 13 benefit and for the Court's benefit, I'd like to 14 refer you to page 54. 15 If Pam can put this up on the screen, 16 page 54, lines 15 through lines 24. 17 THE COURT: Okay. 18 MS. STRONG: And I don't know if you 19 have your transcripts with you, Dr. Lembke, 20 or if you prefer to read it off the screen. 21 Q. Can you read that okay, Dr. Lembke? 22 Α Yes. 23 Okay. And at your deposition on January Q. 24 16th 2020 here in the New York case, you were asked 25 the following question:

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116
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                      Frye Hearing - Dr. Lembke
 2
                    "Has the number of pills in a
       prescription for three weeks of opioids remained the
 3
 4
       same over the past decade?
                   ANSWER: There is huge variation in
 5
 6
       opioid prescribing across the country. In some
 7
       geographic regions opioid prescribing has decreased
 8
       rapidly. In others, it has not. It really depends
 9
       on which doctor.
10
                   QUESTION: So it depends on the doctors
11
       then?
12
                   ANSWER: It continues to depend largely
13
       on the doctor, yes."
14
                    Is that the testimony that you gave at
15
       your deposition in this case, Dr. Lembke?
16
                   Yes, it is.
              Α
17
                   Okay. And doctors are expected to weigh
18
       the risks and benefits of any prescription
19
       medication for each particular patient before
20
       deciding to prescribe it, correct?
21
              A
                  Yes.
22
                   For example, there are numerous patient-
23
       specific risk factors for opioid addiction, right,
24
       you believe that?
25
                   I'm sorry, can you repeat the question.
```

117 1 Frye Hearing - Dr. Lembke 2 Q. I can. 3 There are numerous patient-specific risk 4 factors for opioid addiction, correct? 5 Α Yes. One of those risk factors is personal 6 7 history of substance abuse? 8 Α Yes. 9 Another is family history of substance Q. 10 abuse? 11 Α Yes. Childhood trauma is another factor? 12 Q. 13 Α Yes. 14 And psychiatric comorbidity, correct? Q. 15 Α Yes. 16 And by that, just for the benefit of the 17 Court and for clarity, you mean an individual who 18 has a psychiatric disorder, other than the disease of addiction, which could include everything from 19 20 major depression, obsessive compulsive disorder, bipolar disorder and schizophrenia, correct? 21 22 Α Yes. 23 Q. Although you've traveled to New York and 24 you've talked with some doctors in New York, you do 25 not know whether you have talked with any doctor who

118 1 Frye Hearing - Dr. Lembke 2 practices in Nassau County about his or her 3 experiences with prescription opioids, correct? 4 That is correct. Α 5 And the same is true for Suffolk County, Q. you do not know whether you have ever talked with a 6 7 doctor who practices in Suffolk County about his or 8 her experience with prescription opioids, correct? 9 Α Yes. 10 In fact, the only doctors in New York 11 who prescribe opioids that you can identify are 12 doctors reported in lay-newspapers as operating pill 13 mills, correct? 14 I'm sorry, could you say that again. 15 Q. Absolutely. 16 The only doctors in New York who 17 prescribed opioids who you could identify are 18 doctors reported in lay-newspapers as operating pill mills, correct? 19 20 No, that's not correct. 21 Q. And, again, I'd like to pull up -- I 22 would like you to look at a portion of your 23 deposition testimony in this case, the January 16th 24 2020 deposition. For everyone's benefit we're 25 turning to page 207, lines 4 through 10.

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119
 1
                      Frye Hearing - Dr. Lembke
 2
                    Pam, if you could put that up and
 3
       everyone can take a moment to get their place, page
       207.
 4
 5
                    You were asked at your deposition,
       question, line 4.
 6
 7
                    "So these are reports in the newspaper
 8
       about pill mill doctors in New York?
 9
                    ANSWER: That's right.
10
                    QUESTION: Okay. Other than that, can
11
       you give -- identify any doctor who prescribed
       opioid medications to any individuals in New York?
12
13
                   ANSWER: No."
14
                    Dr. Lembke, that was the testimony that
15
       you gave at your deposition in January, correct?
16
                    Yes.
              Α
17
                    So that means you didn't try to identify
18
       which doctors in New York, if any, saw any of the
19
       specific marketing materials you identified as
20
       problematic in your report, correct?
21
              A
                   No, that's incorrect.
22
                   Well, you didn't identify any doctors
23
       who relied upon any specific marketing materials,
24
       correct, in describing decisions?
25
                    That is incorrect.
```

120 1 Frye Hearing - Dr. Lembke 2 Okay. Did you identify in your report 3 any doctors or the scope of doctors who you believed 4 saw a particular Defendant marketing materials and actually relied upon it in making a decision; did 5 you identify those folks in your report? 6 7 Not in my report, no. Α 8 Q. Did you identify them at your 9 deposition? 10 Α No. 11 In forming your opinions, in forming your opinions you also didn't conduct a survey of 12 13 New York doctors to try to understand what factors 14 they considered in deciding to prescribe opioid 15 medication to any particular patient; did you? 16 What do you mean by "a survey?" 17 Well, I'm not talking about anecdotes. Q. 18 I'm talking about a scientifically rigorous survey. You didn't conduct a survey to 19 20 understand what factors any New York doctor considered in deciding to prescribe an opioid 21 22 medication to any particular patient, correct? 23 Α No. And you also did not conduct a survey of 24 25 New York doctors to try to learn what marketing

121 1 Frye Hearing - Dr. Lembke 2 materials, if any, the prescribers in New York may 3 have received from each individual Defendant, that 4 was not part of your methodology in coming up with 5 your opinions in this case, correct? 6 No, that's incorrect. 7 You conducted a survey, a scientifically Q. 8 rigorous survey to try to learn what marketing 9 materials, if any, a prescriber in New York saw, may 10 have received from each Defendant? 11 So in the research for my book I 12 conducted quantitative interviews with doctors 13 providing what they relied upon in their opioid 14 prescribing, including some healthcare professionals 15 in New York. 16 Okay. So I, I would like you to turn to Q. 17 your January 16th 2020 deposition. If we can pull 18 that up again. It's page 175, line 5, and it runs 19 to line 20. Pam, you've got that on the screen. 20 Dr. Lembke, you were asked at your 21 deposition: 22 "So you conducted no comprehensive 23 survey of doctors and nurses in New York to 24 understand what marketing materials, if any, 25 prescribers in New York received from what

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122
 1
                      Frye Hearing - Dr. Lembke
       individual Defendants; is that correct?"
 2
 3
                    It's correct that the survey --
              Α
 4
                    Let me finish the question.
               Q.
 5
              Α
                    I'm sorry.
 6
                    And so the transcript goes on to say:
 7
       "I feel like I answered the question to the best of
 8
       my ability."
                    A follow-up question is asked at line
 9
10
       12:
            "So do you have a survey that you can show us
11
       where you surveyed doctors and nurses in New York
12
       regarding asking them, for example, Mallinckrodt,
13
       what specific marketing materials did you, Dr.
14
       Smith, in Nassau, receive from Mallinckrodt; do you
15
       have that to produce?
16
                    ANSWER: I don't have a survey at that
17
       level of specificity."
18
                    That's your testimony from your
19
       deposition, correct, Dr. Lembke?
20
              Α
                    Yes.
21
                    Okay. And you did not do a regression
22
       analysis as part of your methodology; did you?
23
              Α
                    No.
24
                    So to be clear to the Court, make sure
25
       we're on the same page, was there a regression
```

123 1 Frye Hearing - Dr. Lembke analysis, is a tool that's employed to try to 2 3 isolate the impact of one factor on another while 4 controlling for potentially confounding factors, correct? 5 6 Α Yes. 7 Okay. And we've been talking about 8 doctors -- I want to shift gears for a moment. 9 Pam, can you actually put up Slide 1 for 10 us again one more time. 11 I want to remind you of what question 3 12 is. It says: "Did those prescriptions, if any, 13 lead to opioid addiction and misuse of use or 14 overdose?" 15 All right. So, Pam, you can pull that 16 back down. 17 And so with that in mind, turning to 18 patients, in forming your opinions, you haven't 19 examined patient outcomes for any particular patient 20 in the State of New York who was prescribed one of the Defendants' opioid medications; have you? 21 22 In my book I describe a patient who I 23 interviewed using qualitative methods who was prescribed an opioid in the State of New York. 24 25 Q. So in forming your opinions you relied

124 1 Frye Hearing - Dr. Lembke 2 upon that, that's your experience from New York, 3 that one anecdote? 4 That is part of my experience for New Α 5 York, yes. 6 Okay. So you've not done anything more Q. 7 to examine patient outcomes for any particular 8 patient in the State of New York who was prescribed 9 one of the Defendants' opioid medications; have you? 10 Not by directly interviewing a patient, 11 no. 12 Q. And you didn't review individual medical 13 records either, correct? 14 Correct. Α 15 And you didn't actually speak to any 16 patients in Nassau or Suffolk County for purposes of 17 forming your opinions in this case at all, correct? 18 Α Correct. And you mentioned that one anecdote in 19 Q. 20 your book. Which drug did the patient take? 21 A She was prescribed buprenorphine. 22 Q. Any other drug? 23 Α No. 24 Ο. So given that you didn't examine 25 patients broadly in forming your opinions, other

125 1 Frye Hearing - Dr. Lembke 2 than the one anecdote you gave us, you didn't talk 3 to folks in Nassau or Suffolk, you didn't talk to 4 patients there, that means that you didn't consider, 5 as part of your methodology, whether any particular 6 patient in New York suffering from chronic pain 7 actually benefited from Defendants' opioid 8 medications, correct? 9 I'm sorry, could you restate the 10 question? 11 Ο. Sure. 12 Given what you've said, as part of your 13 methodology you didn't consider whether any 14 particular patient in New York who suffers from 15 chronic pain actually benefited from Defendants' 16 opioid medications, correct? 17 I did have conversations with patients 18 in New York, others beyond the one that was in my 19 book regarding whether or not they benefited from 20 opioid medications. 21 Q. So you got some anecdotal conversations, 22 that's what you're referring to? 23 I have conversations that I think go 24 beyond anecdote. 25 Q. Okay. But you just testified in forming

126 1 Frye Hearing - Dr. Lembke 2 your opinions in this case you didn't review 3 individual medical records or talk with patients in coming up with your opinions in this case; isn't 4 5 that correct? I didn't review medical records, but I 6 7 did talk to patients. 8 Q. Anecdotally? 9 I think they were interviews based on 10 quantitative methodology. And are they identified in your expert 11 Ο. 12 report, Dr. Lembke, in things that you relied upon 13 in forming your opinions in this case? 14 No. We did not identify individual 15 patients in my report. 16 Because that's not part of your 17 methodology in forming your opinions in this case, correct, Dr. Lembke? 18 19 Α No, that's not correct. 20 Q. So you have a methodology that you 21 failed to disclose to us, Dr. Lembke; is that your 22 testimony? 23 Α No. 24 Okay. You haven't looked at individual 25 prescribing decisions of doctors in New York, and

127 1 Frye Hearing - Dr. Lembke 2 you haven't surveyed them for purposes of in terms 3 of a scientifically rigorous survey for coming up with your, your opinions here, but your analysis 4 5 does depend, in part, on your belief that there's no 6 reliable evidence that long-term opioid therapy is 7 effective for chronic non-cancer pain, correct? 8 Α Yes. You recognize that the FDA has approved 9 10 certain prescription opioid medications for the 11 management of chronic pain, right? 12 Α Yes. 13 And, for example, the FDA has approved 14 Nucynta Er with the indication for management of 15 chronic pain, correct? 16 Α Yes. 17 The same is true for Duragesic? Q. 18 Α Yes. 19 Q. The same is true for Exalgo? 20 Α Yes. 21 Q. The same is true for Kadian, correct? 22 Α Yes. 23 There are a number of generic drugs, Q. 24 generic long-acting opioids that are also approved 25 for the management of chronic pain, correct?

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128
 1
                      Frye Hearing - Dr. Lembke
 2
              Α
                   Yes.
 3
                    Some of those medications are
              Q.
 4
       manufactured by some of the Defendants in this case,
 5
       correct?
 6
                   Yes.
              Α
 7
                   You understand that before approving any
              Q.
 8
       prescription opioid medication the FDA must
       determine that it's safe and effective?
 9
10
                    Well, I just lost sound. Can you repeat
11
       that?
12
              Q.
                   Yes.
13
                   Can you hear me okay?
14
                   Yeah.
              Α
15
                   We have some volume, some noise.
16
       don't know if you can hear it.
17
                    I hear some static, which makes it
18
       harder to hear you.
19
              Ο.
                    Yes. I think it's gone now, Dr. Lembke.
20
       Can you hear me better?
21
              A
                  Yes. Thank you.
22
               Q.
                   So my question was: You understand that
23
       before approving any prescription opioid medication
24
       the FDA must determine that it's safe and effective
25
       for its indicated use, correct?
```

129 1 Frye Hearing - Dr. Lembke 2 Yes, I understand that. 3 You also understand that for a drug to Q. 4 be approved for marketing FDA must determine that the drug is effective and that the benefits outweigh 5 its potential risk to patients; is that right? 6 7 Α Yes. 8 Q. But you don't believe that the totality 9 of the evidence that the FDA reviewed in connection 10 with approving prescription opioid medications for 11 treatment of chronic pain support that indication, 12 correct? 13 That is correct. Α 14 In your opinion, Dr. Lembke, the FDA was 15 just wrong on this issue, correct? 16 They were wrong and also to some extent Α 17 duped. 18 Q. Do you believe they were wrong, Dr. 19 Lembke? That's my question. I would like you to 20 answer my questions. 21 A Yes. 22 So putting aside some of the details 23 that we just covered, at bottom you believe that 24 doctors have prescribed too many opioid medications, 25 correct?

130 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 As part of your work in this case, Q. you've not identified any specific prescription for 4 an opioid medication written in the State of New 5 York that you believe is medically unnecessary, 6 7 correct? 8 And, again, I'm focused on your work in 9 forming your opinions for this case, that which was 10 disclosed to the Defendants. I'm not talking about 11 anecdotal conversations you may or may not have had. 12 I'm really trying to focus on the basis of your 13 opinions in this case as disclosed to the parties. 14 So do you need me to repeat the 15 question? 16 Α Sure. 17 So as part of your work in this case, in 18 forming your opinions here you have not identified 19 any specific prescription for an opioid medication 20 written in the State of New York that you believe is medically unnecessary, correct? 21 22 It's hard for me to answer that yes or 23 I did research for my book, which preceded my 24 involvement in this litigation, which just formed my 25 opinion, and in that process I did qualitative

131 1 Frye Hearing - Dr. Lembke 2 interviews, including with individuals in New York 3 State. 4 Okay. Just so we have absolute clarity Q. on this, why don't we go ahead and turn to page 207 5 of your January 2020 deposition. For everyone in 6 7 the courtroom it's page 207, lines 21, and it runs on to page 208, line 3. Pam has pulled it up. 8 9 Thank you very much, Pam. 10 So at line 21 you were asked: 11 "So my question was a bit different, so 12 let me just ask this: Is your opinion in this case 13 based on identifying concrete examples of specific 14 prescriptions of any opioids written in New York 15 that you believe, in your opinion, were medically 16 unnecessary or inappropriate? 17 ANSWER: My opinion is not based on 18 specific prescriptions, it's based on aggregate 19 prescriptions." 20 That was the testimony that you gave in 21 your deposition in this case, correct? 22 Α Yes. 23 Did you include those qualitative 24 interviews that you just referenced? Did you 25 include those interviews in your expert materials in

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132
 1
                     Frye Hearing - Dr. Lembke
 2
       this case?
 3
              Α
                   Yes.
 4
                   Okay. And can you identify where those
              Q.
       are located in your expert materials?
 5
 6
                   Defense asked for those documents. They
 7
       were copied and given to defense counsel. They were
 8
       used in deposition. I was asked questions regarding
 9
       those documents in deposition.
10
                  And you gave the answer, the aggregate
11
       prescription is what you relied upon. That's what
12
       you testified to at the deposition, right?
13
                   Your opinion is not based on specific
14
       prescriptions, in terms of forming your opinion in
15
       this case, it was based on aggregate prescriptions,
16
       correct?
17
                   That is what I testified at the
              A
18
       deposition, yes.
19
              Q.
                  And you can't point to any particular
20
       prescription for any Janssen opioid medications and
21
       tell the jury that those are medically unnecessary,
22
       that's not something that you're going to do in this
23
       case, correct?
24
              Α
                   No.
25
                   THE COURT: "No," or "no," not correct?
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133
 1
                      Frye Hearing - Dr. Lembke
 2
                    THE WITNESS: Sorry. Ask the question
 3
               again.
                    So I'll rephrase it a little bit.
 4
              Q.
 5
                    You can't point to any particular
 6
       prescription for any Janssen opioid medications and
 7
       tell the jury that those are medically unnecessary?
 8
                    No, I cannot point to any specific
 9
       Janssen prescriptions.
10
                    The same is true for Allergan, correct?
              Q.
11
              Α
                   Yes.
12
                   And Teva?
              Q.
13
                   Yes.
              A
14
              Q.
                   Endo?
                   Yes.
15
              Α
                   Mallinckrodt?
16
              Q.
17
              A
                   Yes.
                    So your opinion in this case instead is
18
       that the total number of opioid prescriptions
19
20
       written was too many, right?
21
              A
                   Yes.
22
              Q.
                   Even though you're focused on the total
23
       number of opioid prescriptions, you still don't know
24
       what the right number of opioid prescriptions is,
25
       correct?
```

134 1 Frye Hearing - Dr. Lembke 2 I don't think that's correct. No, I do 3 have an opinion about that. 4 Okay. So let's go and pull up your Q. deposition. It's page 115 -- let me ask it slightly 5 6 differently before we do that, Pam, actually, one 7 moment. 8 You don't know the right number of 9 patients -- I mean, let's set aside total number of 10 prescriptions. You don't know the right number of 11 patients who should be prescribed opioid medications in this country are in New York or not; do you? 12 13 Well, I'm not sure what you mean by "the 14 right number." I mean, I don't have a specific 15 number. I do have an opinion that we should be 16 prescribing a lot less than we're currently 17 prescribing and for a much narrower indication. 18 Okay. So you think it should be less, 19 but my question is what is the right number? You 20 don't know what the right number of prescriptions is, correct? 21 22 I have not calculated a single number, 23 no. 24 And, in fact, the most you've testified Q. 25 to at your deposition is you said: It's hard to say

135 1 Frye Hearing - Dr. Lembke 2 what the number should be. I think it should be 3 lower. Correct? That's what you said at your 4 deposition? 5 A Yes. Okay. So that means you can't tell the 6 7 Court, for example, how many fewer Kadian 8 prescriptions should have been written, correct? 9 As I said to the Judge earlier, a rough 10 estimate is that we're writing four to five times 11 too many opioid prescriptions compared to what we were writing in the 1990s. So that could also apply 12 13 to Kadian's products. 14 Q. Is it your opinion that the correct 15 number of prescriptions is those that were written 16 in 1990? 17 I think we were closer to what was 18 appropriate for the actual need for analgesia in the 19 population. 20 And that was -- in 1990 you do understand that the Defendants' products mostly did 21 22 not exist, correct? Do you understand that? There are a lot of products. I don't 23 24 know the exact dates of every single product and 25 when it came out on the market.

136 1 Frye Hearing - Dr. Lembke 2 So you don't know that most of the 3 Defendants' products at issue in this case didn't exist in 1990; is that your testimony, Dr. Lembke? 4 I'd like to see the material on that. 5 Α I'm happy to review any additional material. 6 7 I'm just asking if you happen to know as an expert opining in this case, whether the vast 8 9 majority of the products at issue in this case did 10 not exist in 1990; do you know that or not? 11 Well, I, I would disagree that it's the 12 vast majority. Morphine was available, OxyContin 13 was available, hydrocodone products were available. 14 I'm talking about the Defendants' 15 branded products at issue in this litigation as a 16 starting point, most of them did not exist; do you 17 know that or not? 18 If you don't, that's fine, Dr. Lembke. 19 I'm just trying to get an understanding of your 20 knowledge of those medications. 21 Well, you're wanting me to agree with 22 the statement that I'm reluctant to agree with, 23 because I would want to see more material. 24 Because you don't know, without seeing Ο. 25 more material, you can't tell me; is that fair to

137 1 Frye Hearing - Dr. Lembke 2 say? 3 Yes, that is fair to say. 4 Okay. And, you know, I just want to ask Q. 5 a couple more on this point, because I think it's 6 important for us all to be clear on this. 7 Right now sitting here today, you can't 8 testify as to how many fewer Nucynta prescriptions 9 should have been written at any point in time, 10 correct? 11 And, I mean, you know, how many should have been written or should not have been written, 12 13 you can't do that as you sit here today, correct? 14 I can't provide a specific number, no. 15 The same is true for Exalgo? Q. 16 Yes. Α 17 Actiq? Q. 18 Α Yes. That's really true for any individual 19 Q. 20 opioid medications that were sold or distributed or 21 dispensed by any Defendants in this case, correct? 22 Α Yes. 23 So let's talk more about the factors 24 that led to the number of prescriptions of opioids 25 in New York, generally in Suffolk and Nassau County

138 1 Frye Hearing - Dr. Lembke 2 specifically. 3 You do agree that some doctors actually 4 prescribed opioids purely for their own personal 5 profit knowing that the individuals to whom they 6 were prescribing didn't really need the medications, 7 correct? 8 Α Yes. 9 Doctors who prescribe opioids to people 10 knowing that they don't actually need the medications, those doctors are commonly referred to 11 as pill mill doctors, correct? 12 13 Α Yes. 14 They're not prescribing opioids because 15 they believe the prescriptions are appropriate based 16 on anything anyone said, correct? 17 Α Yes. 18 That would include Defendants, they're not doing it based on anything the Defendants said 19 20 when they're out there committing those crimes, correct? 21 22 Α Yes. You do recognize that pill mills have 23 Q. 24 contributed to the opioid problem, correct? 25 Α Yes.

139 1 Frye Hearing - Dr. Lembke 2 You're aware, from at least 3 lay-newspaper articles, I believe you identified 4 those before, that there have been pill mill doctors in New York, right? 5 6 Α Yes. 7 But you can't identify any specific pill 8 mills in New York State, correct? 9 Α Correct. 10 So it's fair to say that you haven't 11 taken steps to measure or quantify the impact of pill mills in causing opioid abuse, misuse or 12 13 overdose, that wasn't part of your methodology, 14 correct? 15 That's incorrect. Α 16 Okay. So let me go here. Q. 17 I understand you published an article in 18 JAMA in 2016 with Jonathan Chen, an altered view of 2013 Medicaid data on opioid prescribing; are you 19 20 pausing because of that? 21 A Yes. 22 Okay. So you know that -- and thanks 23 for that Medicare data -- you know that many pill 24 mill doctors actually run all cash businesses and 25 don't accept insurance, correct?

140 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And Medicare is a form of insurance, Q. 4 right? 5 Yes, it is. Yes. Α 6 I need an oral answer for the 7 transcript. Thanks, Dr. Lembke. 8 If pill mill doctors don't accept an 9 insurance, their prescriptions wouldn't show up in 10 Medicare data, correct? 11 Α That's true. 12 So setting aside that in your 2006 JAMA Q. 13 article addressing Medicare data you conclude -- I'm 14 sorry, setting that aside, in that article you 15 conclude that the overall increase in opioid 16 prescribing was not primarily due to pill mill 17 doctors, correct? 18 That's correct. Okay. But the article doesn't address 19 Q. 20 the impact of pill mill prescribers on specific patient outcomes, correct? 21 22 Α That is true. 23 Q. Okay. And so nothing in the article 24 directly quantifies the impact of prescriptions from 25 pill mill doctors on opioid abuse, misuse and

141 1 Frye Hearing - Dr. Lembke 2 overdose, fair? 3 Α That is fair. 4 Q. So let's talk about doctor shopping 5 next. 6 You agree that in some circumstances 7 patients themselves engage in manipulative behaviors 8 to obtain opioid medications from doctors, right? 9 A Yes. 10 And one example is you know of a patient 11 manipulating a prescriber is when a patient goes to 12 multiple doctors to get the same or similar 13 prescriptions, right? 14 Α Yes. 15 That's called doctor shopping; isn't it? Q. 16 Yes, that's correct. 17 To be clear, doctor shopping patients Q. 18 essentially lie to their doctors to get more opioid prescriptions, correct? 19 20 Α Yes. 21 You would agree that doctor shopping 22 often leads to improper prescriptions, right? 23 Α Yes. You would agree that doctor shopping is 24 Ο. 25 certainly part of the opioid abuse problem in New

142 1 Frye Hearing - Dr. Lembke 2 York, correct? 3 Α Yes. 4 Well, one way to identify patients who Q. 5 may be doctor shopping is to look at the data 6 maintained by a state's prescription drug monitoring 7 program, correct? 8 Α Yes. 9 You haven't looked at New York's Q. 10 prescription drug monitoring program data in forming your opinions in this case, correct? 11 12 That's correct. Α 13 So that means you have not tried to 14 identify how many prescription opioid pills were 15 dispensed improperly as a result of doctor shopping, 16 fair? 17 Not by looking at the prescription drug Α 18 monitoring database. 19 Q. Well, it wasn't part of your methodology 20 in this case to actually measure the impact of 21 doctor shopping on the opioid abuse problem in New 22 York, correct? 23 Α That is correct. 24 So let's turn to opioid prescriptions 25 that were illegally obtained without any

143 1 Frye Hearing - Dr. Lembke 2 prescription at all. 3 Illegally obtaining opioid medications is often referred to as diversion, correct? 4 5 Α Yes. 6 Do you agree that sometimes prescription 7 opioid pills are stolen from production facilities 8 during transit from production facilities or from 9 retail pharmacies; is that right? 10 Α Yes. 11 Opioid pills that were diverted from Q. 12 production facilities, pharmacies or during transit 13 were not prescribed by a doctor, correct? 14 That is correct. 15 You agree that this type of diversion 16 has been part of the opioid abuse problem in New 17 York, right? 18 Α Yes. But you've not identified the number of 19 20 these incidents of diversion in forming your 21 causation opinion in this case; have you? 22 Α No. 23 You don't know what percentage of pills Q. are diverted from pharmacies or distributors; do 24 25 you?

144 1 Frye Hearing - Dr. Lembke 2 Α No. 3 In fact, you aren't even offering an Q. opinion on thefts from pharmacies or distributors in 4 5 this case, correct? 6 Pardon me? 7 I just want to make sure you weren't 8 offering an opinion on thefts from pharmacies or 9 distributors in this case, correct? Right? 10 I can't answer that yes or no. 11 Well, let me try, I'm going to rephrase it one more time and see if we can do this before we 12 13 go to the deposition. 14 Are you offering any opinion in this 15 case about any theft from a distributor in this 16 case? 17 I am offering opinion on diversion but 18 not specifically necessarily due to theft. Okay. So I just really need you to 19 Q. 20 focus on the question. That was my question. You're not offering opinions on thefts 21 22 from pharmacies or distributors in this case, 23 correct? 24 A Correct. 25 Q. And so it's fair to say that you've not

145 1 Frye Hearing - Dr. Lembke 2 tried to quantify the impact of this type of 3 diversion on the opioid abuse crisis in New York; it's not part of your methodology to quantify this 4 diversion, correct? 5 6 That's correct. 7 One of your opinions in this case is Q. 8 that increased supply of prescription opioids 9 contributed to more individuals turning to heroin, 10 correct? 11 Α Yes. 12 Q. You agree that heroin and other 13 illicitly manufactured opioids are supplied by drug 14 dealers and cartels, right? 15 Α Yes. 16 Despite opining on what you believe was 17 the cause of heroin use, are you aware that there 18 were many -- there were more heroin users in New York City in the mid 1970s than in 2000? 19 20 I haven't seen material to that effect, 21 but I'm happy to review, and if you have something 22 you want me to read. 23 Ο. So you're not aware of that; is that 24 your testimony? 25 Α Yes.

146 1 Frye Hearing - Dr. Lembke 2 You're not aware of it, correct? Q. 3 That's correct. Α No part of your methodology involved 4 Q. 5 looking at the illicitly manufactured opioid market 6 in New York, correct? 7 Α That's correct. So let's talk more about the things that 8 Q. 9 may have harmed New York residents. 10 For example, do you believe that other 11 pharmaceutical companies, that are not Defendants in this case, contributed to opioid related harms in 12 13 New York, right? 14 I'm sorry, could you --15 Do you want me to say it again? Q. 16 There are a lot of Defendants in this 17 case. Are you referring to a specific opioid 18 manufacturing --19 Ο. Right now as you sit here, do you 20 believe that other pharmaceutical companies, other than the Defendants in this case, contributed to 21 22 opioid related harms in New York? 23 Yes. I mean, I, I look at it as a sort 24 of aggregate influence. 25 Q. Okay. And do you believe that doctors

147 1 Frye Hearing - Dr. Lembke 2 contributed to opioid related harms in New York, 3 correct? 4 Α Yes. 5 The FDA also contributed to the harms in Q. your opinion, correct? 6 7 Α Yes. 8 Q. State Medical Boards and the Federation 9 of State Medical Boards also contributed? 10 Α Yes. 11 Formulary and reimbursement policies of Ο. insurance companies and other third-party pairs also 12 13 contributed in your opinion, correct? Yes. 14 Α 15 So let's talk a little bit about each of Q. 16 those. 17 Although you believe that there are 18 pharmaceutical companies other than the Defendants here that bear some responsibility, you have not, as 19 20 part of your opinion in this case, quantified the 21 contribution of those non-Defendant pharmaceutical 22 companies; have you? 23 Α No. 24 When you say doctors bear some 25 responsibility, that means all doctors, not just the

148 1 Frye Hearing - Dr. Lembke 2 pill mill doctors we discussed before, correct? 3 Α Yes. 4 Then in the course of writing your book Q. you took notes reflecting that some of your 5 colleagues just want to keep the emergency room 6 7 moving by getting patients out the door, right? 8 Α Yes. 9 One of your trusted colleagues said, 10 Just give them what they want, right? Yes, she did. 11 Α But you haven't quantified the extent to 12 13 which doctors have contributed to the opioid crisis 14 in New York, correct? 15 Not to a specific number, no. 16 And as we discussed earlier, you think Q. 17 the FDA got it wrong when they approved opioid 18 medications for the treatment of chronic pain, 19 correct? I just want to make sure we're back on the 20 same page there. 21 A Yes. 22 You also believe that the FDA 23 contributed to the prescription opioid epidemic by 24 making it easier, because I'm quoting from you, 25 making it easier for the pharmaceutical companies to

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1
                                                            149
                      Frye Hearing - Dr. Lembke
 2
       get FDA approval from new opioids coming on the
 3
       market; is that fair?
 4
                    Yes.
              Α
 5
                    But there's no portion of your
 6
       methodology where you quantify the degree of
 7
       responsibility that should be allocated to FDA,
 8
       correct?
 9
              Α
                   That's correct.
10
                    So let's talk about some of the other
11
       regulatory authorities.
12
                    The New York Board of Medicine has the
13
       power to investigate and discipline doctors,
14
       correct?
15
              Α
                    Yes.
16
                    It also imposes and overseas continuing
17
       medical education, or CME requirements; doesn't it?
18
              Α
                    Yes.
                    The New York Board of Medicine has the
19
               Ο.
       authority to revoke medical licenses, correct?
20
                    Yes, it does.
21
              Α
22
                    If a doctor has his or her license
23
       revoked, the doctor can't prescribe opioid
24
       medications, correct?
25
               A Not lawfully.
```

150 1 Frye Hearing - Dr. Lembke So that's correct? 2 Q. 3 That's correct. Α 4 And you agree that State Medical Boards, Q. 5 including the New York Board of Medicine, 6 contributed to the opioid-related harms, right? 7 Α Yes. 8 Q. But there's no part of your methodology 9 that quantifies the degree of responsibility that 10 should be allocated to the New York Board of Medicine, correct? 11 12 That's correct. Α 13 You also think that model opioid Q. 14 prescribing guidelines released by the Federation of 15 State Medical Boards made the opioid epidemic in New 16 York worse, right? 17 A Yes. 18 So we've talked about a few government 19 regulatory agencies now but, again, to be clear, no 20 part of your methodology quantifies the 21 responsibility of any government or regulatory 22 entity, fair? 23 Α Yes. 24 You also don't, as part of your -- as 25 part of your methodology in this case, you don't

151 1 Frye Hearing - Dr. Lembke 2 quantify the extent to which managed care formulary 3 or other reimbursement policies caused or 4 contributed to the opioid epidemic in New York, correct? 5 6 That's correct. 7 But you agree that managed care 8 formulary, other reimbursement policies did 9 influence how medication is prescribed, right? 10 Α Yes. 11 So we've talked about a number of 12 individuals and entities and other factors that you 13 believe contributed to the opioid crisis. 14 I'd ask Pam now to pull up Slide 2 and, 15 Mr. Asher, if you can, hand that out in court. 16 one will be pretty quick. And if you can go ahead 17 and pull that up. 18 So, again, we've talked about a number of individuals and entities and other factors that 19 20 you believed contributed to the opioid crisis, and I 21 think they'll pop up on the screen here in a moment. 22 But to be clear, Dr. Lembke, you've not 23 specifically quantified the responsibility of any of 24 those factors; have you? 25 Not with a specific number, no.

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152
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                     Frye Hearing - Dr. Lembke
 2
                   MS. STRONG: Okay. So we just don't
 3
              know.
 4
                   No further questions at this time, your
 5
              Honor. Thank you, Dr. Lembke.
 6
                   THE WITNESS: You're welcome.
 7
                   MR. PYSER: Your Honor, this is Steven
 8
              Pyser, I'm up next. Completely up to the
 9
              Court if you want to take a break now or you
10
               just want me to jump in.
                   THE COURT: We're only working for an
11
12
              hour, so jump in.
13
                   THE WITNESS: Mr. Pyser, can you improve
14
              your sound at all? The sound is not good on
15
              my end, neither is my hearing.
16
                   MR. PYSER: I will do my best to improve
17
              my sound.
18
       CROSS-EXAMINATION
19
       MR. PYSER:
20
              Q. Dr. Lembke, I just want to start with
21
       some questions about your personal experience.
22
                   Have you ever worked for a
23
       pharmaceutical wholesale distributor?
24
              A No.
25
              Q.
                  Do you have any training or expertise in
```

153 1 Frye Hearing - Dr. Lembke 2 supply chain management? 3 Α No. 4 Do you have any training or expertise in Q. the distribution of controlled substances? 5 6 Α No. 7 Do you have any training or expertise in Q. 8 suspicious order monitoring for controlled 9 substances? 10 Α No. 11 Do you have any training or expertise in a distributor's legal or regulatory responsibilities 12 13 concerning distribution of controlled substances? 14 I am aware of the Controlled Substances 15 Act and its statement that every player in the 16 supply chain has a responsibility to steward those 17 pills and to monitor suspicious orders. 18 But you don't have any expertise in a 19 distributor's legal or regulatory responsibilities 20 with respect to controlled substances; do you? I don't have specific training beyond my 21 22 medical training and my medical experience, no. 23 0. Doctor, if you could, Dr. Lembke, do you recall giving a deposition in the MDL case on April 24 24th 2019? 25

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154
 1
                      Frye Hearing - Dr. Lembke
 2
                    Yes, I recall giving that deposition.
 3
                    Now, if you're able to control the
       screen and bring up page 276, lines 5 through 9, and
 4
 5
       in that deposition you were asked:
 6
                    "Do you have any training or expertise
 7
       in a distributor's legal or regulatory
 8
       responsibilities concerning the distribution of
       controlled substances?"
 9
10
                    And you answered: "No."
11
                    Is that the testimony you gave under
12
       oath?
13
              A
                   Yes.
14
                   Have you ever designed a suspicious
15
       order monitoring program?
16
              Α
                    Yes.
17
                    Dr. Lembke, you recall being deposed in
               Q.
       this case in New York?
18
19
              Α
                    Yes.
20
                    MR. PYSER: Matt, if you can pull up the
               January 16th 2020 deposition transcript at
21
22
               page 170, line 24, through 171, line 1.
23
               Ο.
                   You were asked:
24
                    "Have you ever designed a suspicious
       order monitoring program?"
25
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155 1 Frye Hearing - Dr. Lembke 2 And you answered: "No." 3 Was that the testimony you gave under 4 oath? 5 Α Yes. 6 Dr. Lembke, I'd like to ask you a little 7 bit about something from your report on page 13 of 8 your report in paragraph 2. If you have it handy I 9 can read it to you as well. You wrote the 10 following: "Opioid prescribing began to increase in 11 the 1980s and became prolific in the 1990s and the 12 early part of the 21st century representing a 13 radical part on shift in the treatment of pain and 14 creating more access to opioids across the United 15 States." 16 Did I read that correctly? 17 Α Yes. 18 And specifically, part of your opinion 19 is that one of the ways that the paradigm shifted is that opioids became a first-line treatment for minor 20 21 pain conditions and chronic pain conditions; is that 22 right? 23 Α Yes. 24 As a result of that paradigm shifting in 25 the treatment of pain it was generally accepted

156 1 Frye Hearing - Dr. Lembke medical practice to prescribe opioids to patients 2 3 for chronic non-cancer pain, correct? 4 Α Yes. 5 Another result of the paradigm shift was that doctors prescribed opioids in higher doses as 6 7 part of the generally accepted medical practice; is 8 that right? 9 A Yes. 10 And doctors, as part of generally 11 accepted medical practice, also prescribed opioids 12 on a longer term basis, correct? 13 Α Yes. 14 When we talk about generally accepted 15 medical practice, that means that's one that most 16 doctors at the time believed was the correct 17 treatment option, correct? 18 Α Yes. 19 Q. When we talk about generally accepted 20 medical practice, that includes the State of New 21 York, as well as the rest of the country; is that 22 right? 23 Α Yes. 24 I'm going to ask you a little bit about Q. 25 something you were asked about this morning.

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157
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                      Frye Hearing - Dr. Lembke
 2
       Hanly brought up something called the gateway
 3
       effect; do you remember that this morning?
 4
              Α
                   Yes.
 5
                   You never used that specific phrase,
 6
       gateway effect, or published that observation in any
 7
       peer-review journal articles; have you?
 8
              A
                   No.
 9
                    "No," you have not?
10
                    I have not published that in any peer-
11
       review journal articles. I have used that in other
12
       contexts.
13
                  Before you were hired as an expert
              Q.
14
       witness in this case Mr. Hanly brought up a book
15
       that you wrote, Drug Dealer, M.D.
16
              Α
                   Yes.
17
                   And he noted that that book was from
              Q.
18
       2016, right?
19
              Α
                   Yes.
20
                   You worked hard on the book?
              Q.
21
              A
                   Yes.
22
              Q.
                   Had to get your facts right?
23
              A
                   Pardon me?
24
                   You tried to get your facts right as to
25
       what you included in the book?
```

158 1 Frye Hearing - Dr. Lembke 2 Yes, I did. 3 So in that book, before you were hired 4 by the Plaintiffs' lawyers here, you had concluded 5 that the relationship between doctors' prescribing patterns and the initiation of heroin use remains 6 7 unclear; is that right? 8 Α Yes. 9 In making that finding you cited to the 10 New England Journal of Medicine, correct? Yes. But I believe I cited the wrong 11 12 citation. 13 Do you know what the right citation is? Q. 14 I can't recall it now, but I had 15 intended to use something other than what I ended up 16 using, which was a later publication. 17 Q. But the statement itself was included in 18 your book, right? 19 A Yes. 20 That is the relationship between 21 doctors' prescribing patterns and the initiation of 22 heroin use remains unclear? 23 Yes. I had a very specific idea in mind with that I didn't clarify, but I could, if 24 25 you'd like me to.

159 1 Frye Hearing - Dr. Lembke 2 Dr. Lembke, did you or did you not write 3 that the relationship between doctors' prescribing 4 patterns and the initiation of heroin use remains unclear? 5 6 Α Yes. 7 I want to shift gears a little bit 8 towards some of the marketing issues that you were 9 asked about this morning. 10 Α Okay. 11 Can you identify any false or misleading Q. 12 claim about opioids made by a pharmaceutical 13 distributor that's been named as a Defendant in this 14 case? 15 Yes, I can. 16 Well, Dr. Lembke, I'd like to direct you 17 to your New York deposition at page 70, line 14, and 18 you were asked at the time the same exact question I 19 just asked you, and that was can you identify any 20 false or misleading claim about opioids that was 21 made by a pharmaceutical distributor that has been 22 named as a Defendant in this case, and you answered 23 that question no. 24 Is that your testimony under oath? 25 Α Yes. That was my testimony.

160 1 Frye Hearing - Dr. Lembke 2 And it was true at the time? Q. 3 At the time it was true. Α 4 That testimony was given after you Q. 5 submitted your report in New York State, correct? 6 Α Yes. 7 You've not filed a supplemental report Q. 8 in New York State, the report you filed is the only 9 report we have from you in New York State; is that 10 right? 11 Α That's correct. 12 Q. On page 6 of that report, I want to 13 refer you to opinion 3. At opinion 3 you wrote: 14 "The pharmaceutical opioid industry contributed to 15 the paradigm shift in opioid prescribing through 16 promotional materials and its use and manipulation 17 of key opinion leaders, continuing medical education 18 courses, professional medical societies, Federation of State Medical Boards, and the Joint Commission to 19 20 convey misleading messages about the safety and effect -- and efficacy of prescription opioids." 21 22 Is that a correct reading of your 23 opinion 3? 24 Α Yes. 25 So I would like to break that down and

161 1 Frye Hearing - Dr. Lembke 2 just talk about the role of distributors or lack of 3 role of distributors as to each of those, okay? 4 Α Sure. When you say the pharmaceutical opioid 5 industry used and manipulated key opinion leaders, 6 7 you're not talking about distributors, correct? 8 Α That's correct. 9 When you say the pharmaceutical opioid Q. 10 industry used and manipulated continuing medical educational courses, you're not talking about 11 distributors? 12 13 A No. 14 "No," you're not talking about 0. 15 distributors? 16 I'm not talking about distributors, no. 17 When you say the pharmaceutical opioid Q. industry used and manipulated professional medical 18 societies, you're not talking about distributors 19 20 there either; are you? 21 Α No. 22 When you say the pharmaceutical opioid 23 industry used and manipulated the Federation of 24 State Medical Boards and the Joint Commission there, 25 you're not talking about distributors either; are

162 1 Frye Hearing - Dr. Lembke 2 you? 3 Α No. 4 THE COURT: You know, when a question 5 calls for a yes or no, it might be a universal recommendation to have every 6 7 witness watch the movie My Cousin Vinnie, 8 when he is asked originally by a deputy he's 9 told, You shot the sheriff. He says, I shot 10 the sheriff. Then when the deputy gets on 11 the stand, what did he say? He says, I shot the sheriff. 12 13 So when you say like no to that last 14 question, you really mean something else. 15 You've been doing a good job. You've been 16 saying, No, I do not, or yes, I do. So for 17 purposes of the record just --18 THE WITNESS: Okay. Thank you. 19 been worried to say more than yes or no. 20 THE COURT: All right. Am I the only 21 person in this building that saw My Cousin 22 Vinnie? Just curious. Let's go. 23 Let's try to clean that up, if we could, because I think we understood what you were saying. 24 25 For each of those last five questions

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163
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                      Frye Hearing - Dr. Lembke
 2
       that I asked you about distributors, your reference
 3
       there did not include any action by distributors; is
 4
       that correct?
 5
                   My reference there does not include any
       action by distributors, that is correct.
 6
 7
                   MR. PYSER: Thank you, Dr. Lembke, and
 8
               thank you, your Honor, as well for helping
 9
               clean up.
10
                    THE COURT: Is Mr. Carter -- he was
11
               referenced in a September 2nd letter as being
12
               an examiner; is that you, sir?
                   MR. CARTER: Yes, it is.
13
14
                    THE COURT: How are you?
                   MR. CARTER: I'm doing well. I have
15
16
              about ten minutes of questions, so if you
17
               would like me to proceed now, I can.
18
                   MR. PYSER: I'm sorry, your Honor, I
19
               wasn't quite done.
20
                    THE COURT: I heard you say "thank you,"
21
               so that was my queue...
22
                    MR. PYSER: That was to my Cousin Vinnie
23
               reference there.
24
                    THE COURT: Mr. Carter, sit down and
25
               enjoy the show.
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164 1 Frye Hearing - Dr. Lembke 2 Go ahead. 3 All right. As part of your methodology 4 in this case, before serving your report, Dr. 5 Lembke, did you consider any documents produced by Cardinal Health? 6 7 Α No. 8 Q. Okay. And same question for 9 AmerisourceBergen. 10 Before serving your report, did you 11 consider any documents produced by 12 AmerisourceBergen? 13 Α No. 14 As to McKesson Corporation, other than a 15 single document that was brought up at your 16 deposition, the Nucynta savings card, other than 17 that single document, did you consider any other 18 documents produced by McKesson? Not before submitting my report, no. 19 20 Q. As to that Nucynta document, you 21 describe that document as a coupon or a savings 22 card; is that right? 23 Α That's correct, yes. 24 Ο. So just talking generally about such 25 documents, a savings card that offers co-pay

165 1 Frye Hearing - Dr. Lembke 2 assistance for the cost of prescriptions, you 3 understand that when a patient has a card for co-pay 4 assistance, the patient still needs to obtain a prescription before they can obtain the medication; 5 is that right? 6 7 Yes, of course I understand that the Α 8 patient still needs a prescription. 9 And if a doctor has written a Q. 10 prescription, that means the doctor has made a 11 decision that that particular medication is the 12 appropriate medication for treatment of pain in that 13 patient; is that right? 14 That's harder for me to answer yes or 15 no. 16 MR. PYSER: Bear with me one second, 17 doctor. 18 So presumably when a doctor has made a decision that a medication like Nucynta is an 19 20 appropriate medication for acute treatment of pain 21 in the patient and issues a prescription, that 22 doctor has made a decision based on their own 23 medical judgment, correct? 24 Not entirely. There are other influences that are at play in a doctor's decision. 25

166 1 Frye Hearing - Dr. Lembke 2 For example, if a drug rep came by and gave them a 3 bunch of, you know, Nucynta saving cards and asked them to give them to patients, that would influence 4 5 that decision. O. But the ultimate decision rather to 6 7 prescribe or not, that decision rests with the 8 doctor, correct? 9 In the most superficial sense, yes. 10 So you don't believe doctors have 11 independent judgment that they exercise with their 12 patients? 13 Yes. But they can only base their 14 judgment on the knowledge that they have, and if 15 that's faulty knowledge, they can't exercise good 16 judgment. 17 Do doctors have an obligation to educate Q. 18 themselves? 19 A Yes, they do. 20 Q. As part of your methodology in this 21 case, did you conduct your own analysis of 22 psychiatric data, such as the ARCOS data, to reach a 23 conclusion about distribution of opioids? 24 Α No. 25 Q. As part of your report and your work

167 1 Frye Hearing - Dr. Lembke 2 here, you're not able to point to any particular 3 distribution of a particular medication and say that 4 the prescriptions filled by a pharmacy as a result of that distribution were medically unnecessary; you 5 can't get to that level of detail, can you? 6 7 No, not to that level of detail. 8 As part of your methodology you're not Q. 9 offering an opinion as to the appropriate number of 10 pills that should have been distributed into the 11 State of New York; are you? 12 Probably I have offered an opinion on 13 that topic, and I have stated before it should be at 14 least four- or fivefold less than current 15 prescribing. 16 Beyond that four- or fivefold estimate, Q. 17 you're not putting forth a particular number of 18 pills that you believe should have been distributed in the State of New York for particular medications; 19 20 are you? 21 Α Not a specific number, no. 22 Ο. Same thing for Suffolk County and Nassau 23 County. You're not offering an opinion as to the 24 specific number of opioid medications that should 25 have been distributed into Nassau or Suffolk County;

168 1 Frye Hearing - Dr. Lembke 2 are you? 3 I'm offering the same opinion for those 4 counties as for the State of New York, as I said 5 before. 6 I'd like to draw your attention to 7 another line in your report at page 18 this time. 8 Do you have that in front of you? 9 Yes. Let me just turn to it. 10 This is something that was covered a 11 little bit earlier. It's toward the top of the 12 page, the Roman number III. It says: "The history 13 of prescription opioid marketing distribution 14 throughout the United States means that it's highly 15 probable that prescribing rates in those counties 16 were far lower in the 1990s before such marketing 17 and distribution campaigns were implemented by the Defendants." 18 19 Do you see that? 20 Α Yes. 21 Okay. I want to just ask you a couple 22 of questions about the basis for that statement. 23 Can you point to any report, article or 24 analysis which concluded that the rate at which 25 healthcare providers prescribed opioids increased

169 1 Frye Hearing - Dr. Lembke 2 because pharmaceutical distributors shift 3 prescription opioids to pharmacies? 4 There are, as in my report, authoritative bodies who have weighed in on this, 5 and I agree with them that the distribution of 6 7 opioid pain pills is what contributed to the 8 increased access to prescription pain pills, and 9 access is a huge risk factor for misuse and 10 addiction. 11 I think maybe we're talking past each 12 other. 13 What I'm asking you is whether there's a 14 report, article or analysis which concluded the rate 15 at which the healthcare providers prescribed, the 16 prescribing decisions, are you aware of any analysis 17 which concluded that healthcare providers' decisions 18 to prescribe increased because pharmaceutical 19 distributors shift prescription medicine to 20 pharmacies? 21 Well, I take it, as a matter of common 22 sense, that you can't get the pills to the patients 23 unless they're distributed to the pharmacies. I'm not asking about getting it to the 24 Ο. 25 patients, though, doctor. What I'm asking you is

170 1 Frye Hearing - Dr. Lembke 2 about the healthcare providers' decision to write a 3 prescription and whether you believe that the simple fact that a distributor shifted medication to a 4 pharmacy caused a doctor to alter their medical 5 6 judgment and write more prescription opioids? 7 That's hard for me to answer yes or no 8 because I -- my sense is it's a feed forward cycle. 9 The more that were shift, the more patients became 10 dependent on them, the more that doctors were in a 11 position to have to continue to prescribe them. 12 Q. So sitting here today, can you point me 13 to any academic article or study that found that 14 doctors prescribing was based on the fact that 15 distributors shift pills to pharmacies? 16 Yeah, I'm not sure I really understand Α 17 the point of the question, so it's hard for me to 18 answer it. 19 Q. You can answer the question whether you 20 understand the point of it or not. 21 So the question is: Are you aware of 22 any study in which the authors of the study found that doctors prescribing increased because of the 23 24 shifting by distributors of medicine to a pharmacy? The increased distribution meant that 25

171 1 Frye Hearing - Dr. Lembke 2 these communities had more opioids, which meant that 3 the general population had more access, either 4 through legitimate prescription or otherwise, which then created the need for ongoing prescribing. 5 6 So I do think that it begins with the 7 access and not with necessarily it's a feed forward cycle. 8 Doctor, again, you're still not 9 Q. 10 answering the question. 11 The question is pointed at doctors' prescribing decisions, healthcare providers' 12 13 prescribing decisions, and the question is: Can you 14 point me to a study in which the authors found that 15 doctors' prescribing increased because distributors 16 shift medication to a pharmacy? 17 THE COURT: Just a yes or no, doctor. 18 Α No. 19 THE COURT: Next question. 20 Q. Dr. Lembke, I want to return to 21 something you said this morning actually, this was 22 point 2 of your summary. 23 And, Matt, if you could bring up point 2 24 of the summary. 25 So point 2 was opioid prescribing grows

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                      Frye Hearing - Dr. Lembke
 2
       fourfold starting in the 1990s, which increased the
 3
       supply of potent and deadly opioids in the general
       population, including New York.
 4
 5
                    That was your point this morning,
 6
       correct?
 7
               Α
                    Yes.
 8
               Q.
                    And you were trying to be accurate when
 9
       you testified this morning?
10
                    Yes.
               Α
11
               Q.
                    You told the truth in your testimony?
12
               A
                    Yes.
13
                    And here what you've said is that the
               Q.
14
       prescribing increased the supply of opioids,
15
       correct?
16
               Α
                    Yes.
17
                    MR. PYSER: You can take that down,
18
               Matt.
19
               Ο.
                    Is it true that without a prescription,
20
       medication that shifts to a pharmacy will stay on
       the shelves of the pharmacy; is that right, doctor?
21
22
               Α
                    Yes.
23
                    Did you interview any pharmacists in the
24
       State of New York for purposes of forming your
25
       opinions in this case?
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173 1 Frye Hearing - Dr. Lembke 2 Α No. 3 Can you identify for the Court a 4 specific doctor in Nassau or Suffolk County who prescribed more opioids because opioids were 5 available at pharmacies? 6 7 Α No. 8 Q. Can you identify a specific doctor in 9 the State of New York who prescribed more opioids 10 because opioids were available at pharmacies? 11 Α No. 12 Q. As part of your professional practice as 13 a doctor, before you prescribe a patient a 14 medication do you regularly call the pharmacies in 15 your area from which the patient could fill that 16 prescription to see if the pharmacies have the 17 medication you want to prescribe? 18 Α Not usually. 19 Q. Dr. Lembke, do you agree with me that 20 the large majority of opioid prescriptions written in New York were written for what the doctor who 21 22 wrote them thought was a legitimate medical purpose? 23 Α Yes. The number of pills of a particular 24 25 medicine that a pharmacy dispenses is dependent on

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174
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                      Frye Hearing - Dr. Lembke
 2
       the prescriptions written by healthcare
 3
       professionals, true?
 4
              A Yes.
 5
                   Doctors have a responsibility to ensure
 6
       that the medications they prescribe for patients are
 7
       for a legitimate medical purpose, correct?
 8
              A
                  Yes.
 9
                   Pharmacists can't dispense opioids
10
       without a prescription, right?
11
              Α
                   Yes.
12
                   MR. PYSER: No further questions, your
13
              Honor.
14
                    THE COURT: Are you sure?
15
                   MR. PYSER: I'm sure this time.
16
                    THE COURT: Okay. We'll take 15
17
              minutes. Thank you.
18
                    (WHEREUPON, a short recess was taken.)
                    THE COURT: Okay. I don't see the
19
20
               witness.
                   Welcome back.
21
22
                    THE WITNESS: Thank you.
23
                    THE COURT: Of course you're still under
24
               oath; you know that, correct?
25
                    THE WITNESS: What is that?
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175
 1
                      Frye Hearing - Dr. Lembke
 2
                    THE COURT: I said of course you're
 3
               still under oath; you know that?
 4
                    THE WITNESS: Yes, thank you.
 5
                    THE COURT: Mr. Carter, you're up.
 6
                    MR. CARTER: Thank you, your Honor.
 7
       EXAMINATION BY
 8
       MR. CARTER:
 9
              Q. Good afternoon, Dr. Lembke. We met at
10
       your deposition. My name is Ed Carter, and I
11
       represent Walmart, okay?
12
              Α
                    Yes.
13
                    I have just a few questions this
14
       afternoon, so hopefully it will move quickly.
15
                    You were asked some questions earlier
16
       today about some of the sources and individuals that
17
       you consulted in preparation for your report as part
18
       of your methodology, I want to start up to that
       topic in connection with your work in this case.
19
20
                    You did not interview any employees of
       Nassau County or Suffolk County; did you?
21
22
              Α
                   No.
23
               Q.
                   You did not interview any law
24
       enforcement officers in the two counties; did you?
25
              Α
                   No.
```

176 1 Frye Hearing - Dr. Lembke You testified earlier about addiction 2 3 and specifically opioid use disorder. 4 You cannot tell us which specific 5 individuals or cases have opioid use disorder 6 diagnosis in Nassau County; can you? 7 Α No. 8 Q. Same question for Suffolk County? 9 Same answer for Suffolk County. A 10 Likewise, you do not know the number of 11 cases where a decedent in that Nassau County or 12 Suffolk County was diagnosed with an opioid use 13 disorder; do you? 14 Α No. 15 THE COURT: You mean, "yes," that is 16 correct? 17 THE WITNESS: That is correct. 18 MR. CARTER: Thank you, your Honor. 19 Q. Dr. Lembke, that is not something that 20 you calculated as part of your methodology in this case; is it? 21 22 No, that is not something that I have 23 calculated. 24 Likewise, you have not studied the 25 overdose death records from either counties to

177 1 Frye Hearing - Dr. Lembke 2 determine whether the individuals had a diagnosis of 3 an opioid use disorder; did you? 4 I did not look at whether they had a diagnosis of opioid use disorder. 5 6 The methodology that you utilized in 7 this case is not a methodology that is generally 8 accepted by psychiatrists or diagnosee in opioid use 9 disorder in a specific individual; is it? 10 Can you rephrase the question? 11 Ο. Sure. The methodology you employed in this 12 13 case to reach the nine opinions that were on the 14 first slide that you showed today on direct, that is 15 not an accepted methodology for diagnosing a patient 16 in a clinical setting with an opioid use disorder; 17 is it? 18 Well, as part of forming my opinion I 19 did use the methods for diagnosing opioid use 20 disorder in individual patients, and my opinion is informed both by my clinical professional experience 21 22 and the research that I did. So I did use that 23 methodology. 24 I couldn't form an opinion about this 25 topic unless I was able to apply the DSM criteria to

178 1 Frye Hearing - Dr. Lembke 2 diagnosing an opioid use disorder. 3 Maybe we're talking about two separate Q. 4 things. 5 You did not apply the DSM criteria to 6 any patient in Nassau or Suffolk County or New York 7 State; did you? 8 No, I did not apply the DSM criteria to 9 any specific patient, as you said. 10 Q. Thank you. 11 Now, if you were evaluating a patient in 12 a clinical setting for a possible opioid use 13 disorder diagnosis, you would consider the full 14 context of information available to you in that 15 clinical setting; wouldn't you? 16 Yes. Α 17 For example, you would consider the Q. 18 patient's medical history, including their mental health history, and any information regarding their 19 20 history of substance abuse, fair? 21 Α Yes. 22 In a clinical setting you have never 23 made a diagnosis of an opioid use disorder by 24 disregarding that context and that clinical 25 indication and instead relying exclusively on

179 1 Frye Hearing - Dr. Lembke 2 aggregate epidemiological statistics, that's 3 something you've never done in a clinical setting; 4 is it? 5 Α No. 6 As part of your methodology you did not 7 evaluate specific cases or specific individuals in 8 Nassau County or Suffolk County to determine whether 9 they ever had a prescription for an opioid 10 medication that was made, distributed or dispensed by one of the Defendants; did you? 11 12 Α No. 13 As part of your work in this case, you 14 described error in some of the documents that you 15 considered, I want to follow-up on that topic, all 16 right? 17 Okay. Α 18 Did you consider any documents produced 19 from the files of a pharmacy Defendant in preparing 20 your report for this case? 21 Yes. -- oh, pharmacy Defendant, sorry --22 well, after submitting this report I have reviewed some files like that, but not before submitting this 23 24 report. 25 Q. Not for the Defendants in the New York

180 1 Frye Hearing - Dr. Lembke 2 litigation, correct? 3 Α Correct. 4 Okay. And just to be clear, make sure Q. 5 we have it for the record, in preparing your report 6 for this case, did you consider any documents 7 produced from the files of a pharmacy Defendant? 8 No, I did not consider documents 9 produced from the files of a pharmacy Defendant for 10 this report. 11 Q. As part of your work in this case, did 12 you review the testimony or depositions of any 13 employees or witnesses from a pharmacy Defendant? 14 Α No. 15 As part of your methodology in this Q. 16 case, did you study the details of the conduct of 17 any pharmacy Defendant as it pertains to Nassau 18 County or Suffolk County? 19 Α No. 20 Q. Using Walmart, my client, as an example, did you study the details of Walmart distribution 21 22 policies for controlled substances in Nassau or 23 Suffolk County? 24 Α No. 25 Q. Did you study the details of the

181 1 Frye Hearing - Dr. Lembke 2 processes that Walmart put in place to empower its 3 pharmacists to exercise their professional responsibility to evaluate prescriptions? 4 5 Α No. 6 Did you review any Walmart policies to 7 identify a specific policy that you believe should 8 have been changed? 9 Α No. 10 Did you identify any specific orders for 11 opioids that a Walmart pharmacy placed that Walmart 12 should have handled differently from a distribution 13 perspective? 14 Α No. 15 Did you identify any specific 16 prescriptions that Walmart should not have filled at 17 its pharmacies? 18 Α No. And if I asked you all of those 19 Q. 20 questions for the other three pharmacy Defendants, 21 would your answers be the same? 22 My answers would be the same. 23 Q. Now I want to switch gears. You talked 24 about marketing earlier. I want to ask you about 25 that.

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182
 1
                      Frye Hearing - Dr. Lembke
 2
                    It's true that the pharmacy Defendants
 3
       never marketed opioids; did they?
                   MR. HANLY: Objection to the form.
 4
 5
                    THE COURT: Time out. There's an
               objection. Mr. Carter, rephrase the
 6
 7
               question. Perhaps you should share your
 8
               concept of marketing with the witness so
 9
               we're on the same page.
10
                   MR. CARTER: Sure.
11
                    In your report, when you offer opinions
              Q.
       regarding marketing, have you offered any marketing
12
13
       opinions that pertain to the pharmacy Defendants?
14
                   Not in my report.
15
                   Okay. And as far as you're aware, did
              Q.
16
       the pharmacy Defendants ever market opioids?
17
              Α
                   Yes.
18
              Q.
                   Okay. I'd like to show you your
       deposition. It's the same one from the New York
19
20
       case that you looked at earlier today. Bear with me
       a moment while I get the screen.
21
22
                    THE COURT: What's the page and line,
23
              please.
24
                   MR. CARTER: The page and line is going
25
               to be 127, line 24, and I'm just trying to
```

```
183
 1
                      Frye Hearing - Dr. Lembke
 2
               get control so that I can present.
 3
                    THE COURT: Okay.
 4
                    Are you able to see my screen with your
               Q.
 5
       transcript up, Dr. Lembke?
 6
                    Yes, I do. I see it.
 7
                    All right. So I want to direct your
               Q.
 8
       attention to the last page -- or, excuse me, the
 9
       last line, down here at the bottom of the page:
10
                    "Are you aware of any marketing of
11
       opioids conducted by any of the retail chain
12
       pharmacy Defendants?"
13
                    And it goes to the next page.
14
                    "ANSWER: No."
15
                    Do you see that?
16
                    Yes, I do.
              Α
17
                    That's the testimony you provided under
               Q.
18
       oath in your deposition in this case, correct?
                    Yes. That was true at the time.
19
20
               Q.
                    That was true for purposes of your
21
       report in this case, correct?
22
               Α
                    Yes.
23
                    Since then you've never supplemented
               Q.
24
       your report or put the pharmacy Defendants or anyone
25
       else on notice that there's been any change or
```

184 1 Frye Hearing - Dr. Lembke 2 errata to your sworn deposition testimony, true? 3 I can't speak to what Plaintiffs' 4 counsel has notified Defendants about, but I have reviewed other records since then, which has led to 5 my changing my opinion on this deposition question. 6 7 But whatever your opinion is, that's not Q. 8 something you shared with anyone in New York, to 9 your knowledge, true? 10 Not in my report. 11 You don't plan on testifying at trial in 12 this case with respect to marketing by pharmacy 13 Defendants, true? 14 If I'm asked a question about whether or 15 not pharmacies ever marketed specific products, to 16 answer that truthfully I will have to say that I am 17 aware of that having happened. 18 We can deal with the representations of 19 the various pleadings, I won't belabor the point, 20 but in these subsequent materials that you reviewed, unrelated to New York and not in your New York 21 22 report, do any of them relate to controlled 23 substance prescription opioids? 24 Α Yes. 25 Q. Do any of them relate to marketing in

185 1 Frye Hearing - Dr. Lembke 2 Nassau or Suffolk County? 3 Possibly, but there is no geographic 4 specific information that I'm recalling. 5 All right. And likewise, you cannot Q. 6 identify any claim about opioids made by a pharmacy 7 Defendant that you allege was false or misleading; 8 can you? 9 Again, yes, I can, because I've reviewed 10 other materials since the deposition and since my 11 report. 12 Let me pull up -- I'd like to direct you 13 to page 127 of your deposition. Lines 20 to 23: 14 "Can you identify any false or 15 misleading claim about opioids made by one of the 16 retail pharmacy Defendants in this case? 17 ANSWER: No." 18 Do you see that? 19 Α Yes, I do see that. 20 Q. That was the testimony that you provided 21 under oath in your deposition in January, correct? 22 Yes, that was the testimony I provided 23 then. 24 Between January and today, September Ο. 25 9th, have you issued an errata to correct your

186 1 Frye Hearing - Dr. Lembke 2 testimony in the New York case? 3 Α No. 4 Q. Have you issued a supplemental report to 5 update your opinions in this case on that topic? 6 Α No. 7 In terms of the nine opinions that were Q. 8 listed on your first slide -- sorry, I'm having 9 trouble with the mouse, your Honor, excuse my technical novice. 10 11 Back to my question, doctor. 12 The nine opinions that are listed on 13 Slide 1 that you showed today, none of them relate 14 to any marketing statements or allegedly misleading 15 statements by the pharmacy Defendants, true? 16 In my report I refer to the Α 17 pharmaceutical opioid industry and in that I include 18 the pharmacies. 19 Ο. So is it your testimony that one of the 20 nine opinions on Slide 1 references pharmacy Defendants making marketing statements? 21 22 Α Yes. All right. I'd like to pull up Slide 1. 23 Q. 24 Which one of these statements references 25 a pharmacy Defendant marketing opioids?

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187
 1
                     Frye Hearing - Dr. Lembke
 2
                   THE COURT: It's not on the screen.
 3
                   MR. CARTER: That makes it harder, so
               let me --
 4
                   THE COURT: Can somebody help out?
 5
                   MR. CARTER: Your Honor, I relied on the
 6
 7
               shared Adobe, not the entire screen. So one
 8
               second, I think I can fix this I believe.
 9
                   THE COURT: Halfway there, Mr. Carter.
10
              You got the other one down.
11
                   MR. CARTER: Okay.
12
                   MR. CARTER: Is this one up now?
13
                   MR. HANLY: Yes.
14
                   All right. So, Dr. Lembke, you do not
              Q.
15
       have any references in Slide 1 to a pharmacy
16
       Defendant issuing a marketing statement, correct?
17
              A
                   That's true.
18
              Q.
                   Thank you.
19
                   And, in fact, if we go through your
20
       entire report for the New York case, it's also true
21
       that you do not mention any pharmacy Defendant by
22
       name at any location in your report, true?
23
              Α
                   True.
                   Likewise, your report does not identify
24
              0.
25
       any pharmacy Defendant as having, to a reasonable
```

188 1 Frye Hearing - Dr. Lembke 2 degree of medical and scientific certainty, violated 3 a regulation or duty of care in Nassau County or Suffolk County, correct, that's not anywhere in your 4 report; is it? 5 6 Correct. That's not in my report. 7 Bottom line is, because you did not 8 analyze or study the conduct of the pharmacy 9 Defendants in Nassau and Suffolk County in 10 preparation of your report, this case, you'll not be 11 offering any opinion at trial regarding the specific conduct of a pharmacy Defendant in Nassau or Suffolk 12 13 County; do you agree with that? 14 Again, if I'm asked under oath to 15 testify about the role of the pharmacies, I will 16 offer an opinion that's based on additional material 17 I've seen. 18 Q. But sitting here today, in terms of 19 what's in your report, none of those opinions are articulated with specificity in your report for this 20 case, true? 21 22 That's true. 23 Q. Last topic. On direct you expressed an 24 opinion that doctors were duped; do you recall that? 25 Α Yes.

189 1 Frye Hearing - Dr. Lembke 2 I would like to follow-up on that. Q. 3 If doctors were duped to the point where 4 well-intentioned doctors genuinely believed that 5 they were exercising appropriate medical judgment in 6 prescribing opioids, you agree that the same 7 phenomenon would also apply to pharmacists, fair? 8 Α Yes. Possibly. 9 In terms of your background and 10 training, you are not familiar with the specific 11 licensing requirements for pharmacists in New York; 12 are you? 13 Α No. 14 You don't know what kind of training 15 pharmacists in New York go through; do you? 16 No, I don't. Α 17 The education and training of Q. 18 pharmacists is not a topic that you've studied in connection for this case; is that correct? 19 20 That is correct. 21 Q. You will not be offering an opinion at 22 trial regarding what pharmacists in Nassau or 23 Suffolk understood or believed about the risks and 24 benefits of opioid medications; will you? 25 Α No.

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190
 1
                      Frye Hearing - Dr. Lembke
 2
                   You will not offer an opinion, starting
 3
       from the specific pharmacists in those two counties,
       acted unreasonably in filling any specific
 4
       prescription; will you?
 5
 6
                   Not for any specific prescription, no.
 7
                   My final question. As part of your
              Q.
 8
       methodology in this case, you have not identified
 9
       any particular case where specific prescriptions for
10
       opioids should not have been filled by a pharmacist
11
       acting in good faith; have you?
12
                    Not any specific case, no.
13
                    MR. CARTER: Those are all the questions
14
               I have for you. Thank you.
15
                    THE WITNESS: You're welcome.
16
                    THE COURT: Mr. Hanly, redirect.
17
                   MR. HANLY: Thank you, your Honor.
18
       REDIRECT EXAMINATION
19
       MR. HANLY:
                   MR. HANLY: Could we take down that
20
              slide, please.
21
22
              Q.
                  Dr. Lembke --
23
              Α
                   Yes.
24
              Ο.
                   -- I'm going to ask you a few questions
25
       on redirect examination.
```

191 1 Frye Hearing - Dr. Lembke 2 First of all, just to clarify, and 3 perhaps I misheard or misunderstood one of the 4 questions asked by Mr. Carter just a few minutes ago, the nine opinions that you hold and would give 5 in this case at trial, if permitted to do so by 6 7 Justice Garguilo, have nothing to do with the diagnosis or the diagnostic criteria for addiction, 8 9 true? 10 Well, yes and no. I mean, I, I must be 11 familiar with those diagnostic criteria in order to 12 have a working background knowledge of this problem 13 more broadly. 14 But there's nothing referred to in the 15 nine opinions concerning any diagnostic criteria; is 16 that right? 17 Well, under opinion 1 addiction is a chronic illness. I do describe in brief what the 18 19 diagnostic criterion are for diagnosing an opioid use disorder. 20 21 Q. There was a suggestion -- withdrawn. 22 Is there any peer-reviewed publication,

guidelines, criteria, mandates, requirements of any

sort that provide it is necessary to do widespread

surveys of physicians in order to reach opinions,

23

24

25

192 1 Frye Hearing - Dr. Lembke 2 for example, about the relationship between 3 physicians' prescribing habits and, and consequent 4 harms, is there any set of rules that say you have to do a survey of 10 or 100 or a thousand or a 5 6 million doctors in order to have a sound basis upon 7 which to make conclusions concerning the 8 relationship, for example, between prescribing and 9 ultimate harms? 10 No, there are no mandated requirements 11 or recommended requirements to that effect. You were asked a number of questions by 12 Q. 13 Miss Strong concerning whether you are able to 14 quantify the relative roles of different players, if 15 you will, in the opioid saga in respect of the 16 opioid epidemic, correct? 17 Α Yes. 18 All right. And -- but you already 19 testified, before she asked you that litany of 20 questions about your ability to give percentages, 21 that you are not an econometrician, right? 22 That's correct. 23 You don't have any training in 24 econometrics? 25 Α That's correct.

193 1 Frye Hearing - Dr. Lembke 2 And your engagement in this case by the 3 lawyers for the communities had nothing to do with 4 you providing percentages of relative liability, 5 correct? 6 That's correct. Now, you testified, when asked a number 7 8 of questions by Miss Strong about surveys, you 9 answered on several occasions that you had done 10 qualitative interviews; do you remember that? 11 Α Yes. 12 In fact, you did such interviews; is 13 that correct? 14 Yes, I did. Α 15 There was a suggestion that, that was 16 not disclosed and didn't appear anywhere in your 17 report, correct? 18 That was suggested, yes. 19 Q. Right. Do you have your report in the 20 New York litigation handy? Yes, I do. 21 Α 22 Q. Could you turn to page 5 of that report. 23 Α Yes, I'm at page 5. Right. And up at the top is paragraph 24 Q. 25 number 23; do you see that?

194 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 And I'm just going to read the beginning 4 part of that paragraph. You wrote: "In forming the 5 opinions expressed in this report, I have relied on 6 my medical training, more than 20 years of clinical 7 experience, and my own research on opioid 8 prescribing. 9 My research began circa 2001 and has 10 been multimodal. I have done qualitative interviews 11 with patients, providers and others in the healthcare field on questions related to opioid 12 13 prescribing." 14 Did I read that correctly? 15 Α Yes. 16 That is, in fact, true; is it not? Q. 17 Yes. Α 18 Q. That while you did not do surveys of 10 or 100 or a thousand or a million doctors or 19 20 patients, you did selective qualitative interviews of that very same population? 21 22 Α Yes. 23 Now, Miss Strong also took you through a Ο. 24 number of risk factors for the development of opioid 25 use disorder or addiction, right?

195 1 Frye Hearing - Dr. Lembke 2 Α Yes. 3 But I don't recall her calling to your Q. 4 attention anything about dose and duration of the 5 administration of opioids as constituting a risk 6 factor. 7 My question to you is: Are dose and 8 duration of the administration of these kinds of 9 drugs a risk factor for the development of an 10 addiction? 11 Yes. The science showed that those are 12 important risk factors for the development of 13 addiction. 14 Do you accept that science? Ο. 15 Yes, I do. Α 16 Okay. Is that concept generally 17 accepted, that dose and duration -- in other words, 18 how strong the pills are or how many you're taking and for how long are reflective or indicative of 19 20 what your risk would be? Yes. Increasing dose and duration 21 22 increase the risk of both addiction and overdose. 23 0. You were asked questions about the FDA. 24 I just want to ask you a couple of brief questions 25 about that.

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196
 1
                      Frye Hearing - Dr. Lembke
 2
                    The FDA does not have laboratories where
 3
       they do widespread testing of drugs; isn't that
 4
       true?
 5
              A
                   That's true.
 6
                   In fact, in determining whether a
 7
       particular drug is safe and efficacious, the FDA has
 8
       to rely upon information provided to it by what's
 9
       called the response of the company that's making the
10
       drug, right?
11
              Α
                  Yes.
12
                   So there's a kind of a necessity on the
13
       part of the FDA to take at face value what is told
14
       to it concerning the results of any review of safety
15
       or efficacy?
16
                   MS. STRONG: Objection, your Honor.
17
                    This is Sabrina Strong again. I am
18
               trying to be very lenient with leading.
19
                   THE COURT: I got it.
20
                   MS. STRONG: Leading.
21
                    THE COURT: I'll sustain it. Rephrase
22
               the question.
23
                   MR. HANLY: Okay.
24
                    THE COURT: It's too suggestive of the
25
               answer.
```

197 1 Frye Hearing - Dr. Lembke 2 MR. HANLY: Got it, Judge. 3 The FDA does not do its own physical Q. 4 research on proposed new drugs, correct? 5 That's correct. Α 6 Where does the FDA get information then 7 concerning the attributes of that proposed new drug 8 or prospective indication for that new drug; where 9 does that information come from? 10 From the drug companies who are making 11 the drug and trying to get approval for the drug. 12 Q. Now, there was a question asked by Mr. 13 Pyser as to whether you used the term gateway effect 14 in any peer-reviewed publication of yours, right? 15 Α Yes. 16 You testified that, no, that term did 17 not appear in any such publication, but, of course, 18 it does appear, in fact, it's part of the name of a 19 chapter in your book, correct? 20 That's true. 21 All right. And isn't it also true that 22 subsequent to the publication of your book in 2016 23 that at least one peer-reviewed report used the term 24 gateway effect? 25 A Yes.

198 1 Frye Hearing - Dr. Lembke 2 And I'm just looking for that page, that 3 slide that has that on it. 4 I would say that gateway effect is a commonly accepted term in addiction medicine. It's 5 not a new term or a creative term. 6 7 But, in fact, in the year 2017, a year Q. 8 after the publication of your book, there was 9 published a peer-reviewed article that actually 10 references the gateway effect, right? Yes. Which article was that? Was that 11 12 the Harbaugh? 13 I believe it's Harbaugh, but I can't Q. 14 seem to find it. 15 But in any case, we can agree that 16 subsequent to your use of the term gateway effect it 17 was used by other medical researchers and authors, 18 right? 19 Α Yes. 20 MR. PYSER: Objection. 21 Leading again. 22 THE COURT: I'll allow it. Go ahead. 23 If we were going to hear an objection for every leading question, we'd be here until 24 25 Thanksqiving.

199 1 Frye Hearing - Dr. Lembke 2 Okay. The report that I was referencing 3 was Slide 18 that we looked at, doctor, and it's the 4 NASEM report on pain management and the opioid 5 epidemic. 6 We've called out this particular slide. We see that this paper was published in 2017, the 7 8 year after your book in which you used the term 9 gateway effect, and there we see a quote from the 10 NASEM report. "Preponderance of evidence suggests 11 that the major increase in prescription opioid use beginning in the late 1990s has served as a gateway 12 13 to increased heroin use." 14 Did I read that correctly? 15 Α Yes. 16 You didn't write that; did you? Q. 17 No. Α 18 Q. You weren't part of the folks who wrote 19 this consensus study report; were you? 20 Α No. 21 Q. All right. Last area. Promise, your 22 Honor. Miss Strong's Slide Number 2 is, is the 23 24 slide that consists of these circles with various 25 things written in; do you remember that, doctor?

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200
 1
                      Frye Hearing - Dr. Lembke
 2
                    The one with the big question mark in
 3
       red at the end?
 4
              Q.
                   Yes.
 5
              Α
                    Okay. Yes.
 6
                    Okay. And so let me see if I can use
              Q.
 7
              There we are. Okay.
       this.
 8
                    And so Miss Strong labeled these
 9
       Lembke's Factors, and let me see if I understand it.
10
                    Do you agree that these are some of the
11
       factors that in your opinion relate to the opioid
12
       epidemic?
13
                    Yes, they are some of the factors.
14
              Q.
                    But they're not all of the factors; are
15
       they?
16
                    No.
              Α
17
                    Because what's missing from these --
              Q.
       this collection of circles of varying --
18
                    THE COURT: Mr. Hanly, ask the witness
19
               what's missing.
20
21
              Q.
                    What, if anything, are missing from
22
       these -- from this chart?
23
                    Well, Miss Strong referred to other
24
       pharmaceutical companies by which I believe she
25
       meant those not involved in the litigation, so
```

201 1 Frye Hearing - Dr. Lembke 2 that's a big circle that's missing. 3 What's also missing is key opinion leaders, drug detailers, drug rep detailers, the 4 whole medical education paradigm shift that led 5 doctors -- that doctors relied on to inform their 6 7 prescribing. 8 Q. Should pharmaceutical manufactures be 9 among these circles? Yes. So that's what I meant when I said 10 11 not just other pharmaceutical companies, but the Defendants in this case should certainly be on this 12 13 list. 14 So -- well, I'm not going to lead you. Q. 15 Who are the others that would be 16 appropriately on the list of Dr. Lembke's Factors? 17 So opioid manufacturers, opioid 18 distributors, opioid pharmacies or pharmacies where opioids were dispensed and distributed. 19 20 MR. HANLY: Okay. Doctor, that is --21 oh, one more area. 22 Mr. Pyser brought to your attention a 23 statement in your book in which, and I'm 24 paraphrasing the statement, that prescription 25 opioids, the relationship between prescription

202 1 Frye Hearing - Dr. Lembke 2 opioids and heroin use is unclear; do you recall him 3 asking you about that sentence? 4 Yes, I do. Α 5 That is a sentence that you wrote in Q. your book? 6 7 Α Yes. 8 Q. Can you explain to Justice Garguilo and 9 all of us what you meant by that sentence. 10 Yes. So at the time there was much 11 debate about whether or not efforts that were being 12 made at that time to curb opioid prescribing might 13 be contributing to patients who had become dependent 14 on and addicted on opioid, turning to elicit 15 sources. 16 At the time that I published the book 17 and finished my reference list there wasn't really 18 good definitive data. Furthermore, the natural history and the 19 20 progression of the disease of addiction would lead 21 patients who become addicted to prescription opioid 22 to seek out more potent, more potent forms and more 23 and cheaper sources, and as the U.S. population 24 broadly became dependent on and addicted to 25 prescription opioid the drug cartels responded to

203 1 Frye Hearing - Dr. Lembke 2 that increased demand by making heroin more cheaply 3 available. 4 Again, this sentence, called to your Q. attention by Mr. Pyser, was written in or around 5 2016? 6 7 That's right. Actually, it was written 8 probably a year before that. It takes about a year 9 between finishing a manuscript and its coming out in 10 publication, so I really finished the book in 2015. O. The NASEM article that we looked at that 11 12 talked about a prescription opioid use as a gateway 13 to heroin, increased heroin use, was two years or so 14 after you wrote this sentence about the relationship 15 being unclear? 16 A Yes, that's right. 17 And does science progress over a Q. 18 two-year period? 19 A Yes. It became more clear right around 20 that time period that, in fact, prescription opioid 21 are a gateway to heroin. 22 MR. HANLY: Thank you very much, doctor. 23 That's all I have. Thank you, your Honor. 24 THE COURT: Okay. Dr. Lembke, thank you 25 very much.

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204
1
                     Frye Hearing - Dr. Lembke
 2
                   THE WITNESS: Thank you.
 3
                   THE COURT: You're excused.
 4
                   THE WITNESS: Thank you.
                   THE COURT: With no other business, the
 5
 6
              Court will close the record.
7
                   Thank you all.
8
9
10
11
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Frye Hearing - Dr. Lembke I, Stephanie Casagrande Hague, CSR, RPR, an Official Court Reporter of the State of New York, County of Suffolk, do hereby certify that the above is a true and accurate transcription of my stenographic notes taken in the above-entitled action on this day; Furthermore, photocopies made of this transcript by any party cannot be certified by me to be true and accurate. Therefore, only those copies bearing an original signature in blue ink are official certified copies. STEPHANIE CASAGRANDE HAGUE, CSR, RPR Official Court Reporter

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